

School of Forestry & Wildlife Sciences

FEATURE STORY

Going Back to Nature

SFWS' Kreher Preserve and Nature Center provides welcome respite during pandemic

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Working with Nature for Society's Well Being

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Administration



Barlow and Enebak receive endowed professorships

Two faculty members in the School of Forestry and Wildlife Sciences have received endowed professorships. Professors Becky Barlow and Scott Enebak are now the Harry E. Murphy Professor of Forest Measurements and Management and the Dwain G. Luce Professor of Plant Pathology, respectively.

The appointments take effect this semester and will continue for three years. Barlow is an expert in the areas of forest measurements and management, agroforestry and small-woodlot management. She is also the coordinator for the Alabama Cooperative Extension System Forestry Wildlife and Natural Resources team, or FWNR, at Auburn.

"I am honored to be selected, and I will use this opportunity to continue my work in forest management extension while expanding the reach of the entire forestry wildlife and natural resources team," Barlow said of the new professorship.

She plans to partner with the FWNR team members, Alabama Extension communications and other natural resource professionals to investigate opportunities for alternative and improved approaches to content delivery.

"Some specific ideas I would like to explore include the development of additional FWNR online extension courses and videos, the development of a FWNR Extension podcast and a study of how women and minority landowners respond to FWNR Extension program advertising," Barlow said.

Enebak, who is also the associate dean of academic affairs in the school, said that for him the new professorship is significant both professionally and personally.

"It is quite an honor to be named to the Luce Professorship," Enebak said. "I knew Mr. Dwain Luce personally and professionally through his interactions with the School of Forestry and Wildlife Sciences before his passing in 2007. I even had the opportunity to instruct his granddaughter, Sarah,

"These two newly endowed professors are outstanding faculty members in the School of Forestry and Wildlife Sciences."

- Dean Janaki Alavalapati

in a couple of courses at Auburn. She was just as passionate about learning as he was about undergraduate education.

"With this endowed professorship, I will continue to demonstrate Mr. Luce's strong commitment to students' education in forestry and serve as a positive role model for their continued success," he added.

The Harry Murphy Dean's Enhancement Fund for Excellence in the School of Forestry and Wildlife Sciences is a permanent endowment that was established in the Auburn University Foundation by the late Harry Murphy's estate.

Murphy was a forestry graduate from Pennsylvania State University and a World War II veteran who took his first job as a forester with the Tennessee Valley Authority in Sheffield, Alabama.

In 1952, he partnered with John Bradley, who owned a small forestry consulting firm. With Murphy as vice president and Bradley as president, that small firm would develop into Resource Management Services, or RMS, now an internationally known forestry consulting firm, one of the largest such firms in the U.S.

The company is an independent, employee-owned manager of forest investments and provides comprehensive timberland

investment services to pension funds, endowments, foundations and family offices. It is established as an independent advocate for timberland owners.

Because RMS employs so many Auburn forestry graduates and uses research that is developed at the School of Forestry and Wildlife Sciences, it was natural for the school to create this fund for excellence to honor both Murphy and his company.

The Dwain Luce Endowed Professorship of Forestry in the School of Forestry and Wildlife Sciences was also established in the Auburn University Foundation to provide a professorship within the school. Along with his wife, Margaret, Luce previously provided funds to endow an undergraduate scholarship and funded the Student Services Suite in the School of Forestry and Wildlife Sciences Building.

Luce, a Mobile native and a 1938 Auburn graduate, was a decorated World War II Normandy veteran who served in the 82nd Airborne Division; his wartime story was told in the Ken Burns documentary, "The War."

After the war, Luce became a bank loan officer specializing in forestland purchases and eventually became a business leader, serving as founding director of First Mississippi Corporation and the Bank of Mobile, former director and president of the Mississippi Export Railroad, former president of First Alabama Bank Group Holdings and former senior executive vice president of First National Bank.

Luce was a member of the School of Forestry and Wildlife Sciences advisory council and campaign development team. Because of his continuous support of the university, Luce was tapped for membership in Auburn's 1856 Society.

To determine the recipients of both new professorships, a search committee of three endowed professors in the School of Forestry and Wildlife Sciences — Mark Smith, Tom Gallagher and Daowei Zhang — recommended Barlow and Enebak for the positions after reviewing numerous applications.

School of Forestry and Wildlife Sciences Dean Janaki Alavalapati accepted the committee's recommendations and sent them to Auburn Provost Bill Hardgrave, who approved the appointments.

"These two newly endowed professors are outstanding faculty members in the School of Forestry and Wildlife Sciences," Alavalapati said. "Drs. Barlow and Enebak were exemplary choices for these honors."



Professor and Alabama Extension Forestry Coordinator Becky Barlow has been appointed as the Harry E. Murphy Professor of Forest Measurements and Management in the School of Forestry and Wildlife Sciences.



Auburn Professor and Associate Dean of Academic Affairs Scott Enebak has been appointed as the Dwain G. Luce Professor of Plant Pathology in Auburn's School of Forestry and Wildlife Sciences.

School welcomes new faculty members

Five new faculty members have joined the School of Forestry and Wildlife Sciences to expand its expertise and capacities. This new group of researchers and professors will propel the school's increasing array of innovative programs, its size and standards of excellence.

"The School of Forestry and Wildlife Sciences continues to build on the tremendous growth it has experienced in recent years," said Dean Janaki Alavalapati.

He added that much of this growth has been propelled by a significant increase in students drawn to the school's launch of new academic programs, several in partnership with other colleges.

The latest undergraduate majors — geospatial and environmental informatics, sustainable biomaterials and packaging and wildlife enterprise management — along with several new online graduate programs — spurred an increase of about 50% in undergraduate and graduate enrollment.

"This year, we have hired a group of highly esteemed faculty members whose expertise and experience will further sustain our burgeoning programs and make way for new academic, research and extension opportunities," Alavalapati said. Adding these new faculty members will both enhance the size and quality of our programs and further advance our land-grant mission."

Here is a brief introduction to the faculty members that are joining the school in the 2020-21 academic year.

Heather Alexander

ASSISTANT PROFESSOR OF FOREST ECOLOGY

Heather Alexander is a forest and fire ecologist whose research focuses on understanding ecosystem vulnerability in the face of climate change and altered disturbance regimes, especially fire.

Her research focus areas include the effects of wildfire severity on forestry structure and carbon dynamics in the Siberian Arctic and the implications of fire suppression and mesophication on oak forest of the eastern U.S.

Before coming to Auburn, she was an associate professor in the College of Forest Resources at Mississippi State University. She earned her Ph.D. in biology from the University of Kentucky and was a post-doctoral fellow of Forest Ecosystem Ecology at the University of Florida.



"While at Auburn, my research program will continue to focus on how forests respond to fire disturbances, both wildfires and prescribed fires," Alexander said. "My lab will also explore how traits of different forest trees influence forest flammability. This will help us better understand how changes in forest composition due to climate change, invasive species or other causes impact our ability to manage forests using fire."

Alexander will also teach courses in forest fire and forest ecology.

Wesley Anderson

ASSISTANT PROFESSOR OF WILDLIFE AND EXTENSION SPECIALIST

Wesley Anderson's research interests include wildlife management in agricultural systems, wetland ecology and restoration, invasive species biology and control and non-game management and conservation.

Much of his current research involves the impacts of wild pigs across Florida rangelands. He intends to expand this work with agricultural producers and other stakeholders in Alabama, in addition to using drone technology to address these issues.

For four years, Anderson worked as an environmental consultant dealing primarily with wetland and endangered species projects, interests that will carry over to his current position.



"The opportunity for conservation through education is one of the primary reasons I pursued a career in wildlife biology. I see these opportunities not just as a chance to educate, but also to inspire the conservation leaders of tomorrow," Anderson said.

Anderson earned a Ph.D. in wildlife ecology conservation from the University of Florida, where his work at the Range Cattle Research and Education Center exposed him to extension at the intersection of wildlife management and agricultural production, which will also be a focal area for his program at Auburn.

"The School of Forestry and Wildlife Sciences continues to build on the tremendous growth it has experienced in recent years."

- Dean Janaki Alavalapati

Amy Counterman

PROFESSOR OF PRACTICE

Amy Counterman brings more than 15 years of experience in landscape design, community development and environmental compliance and safety to Auburn.

Counterman, who has aided and collaborated with clients in a wide variety of industries, earned dual degrees in environmental studies and law and policy from the University of California, Santa Barbara; she then earned a master's degree in landscape architecture from Mississippi State University.

At MSU, her research focused on green infrastructure and wildlife habitat use. While there, she led outreach activities, green roof demonstrations and pedagogy development centered on green roof habitats and human-wildlife interactions. She also taught courses in the Department of Landscape



Architecture focusing on design, plant system use and historical perspectives in landscape architecture. A former director of Keep Starkville Beautiful, Counterman worked with community partners and volunteers to implement city beautification efforts through authoring and managing grants and associated projects that received both local support and national recognition.

Counterman will develop and teach courses related to urban forestry, sustainability and natural resources management.

Jessica Daniel

PROFESSOR OF PRACTICE, ONLINE GRADUATE PROGRAMS

As professor of practice for online graduate programs, Daniel will instruct and coordinate courses for the online Master of Natural Resources and three interdisciplinary online graduate certificate programs, in addition to other responsibilities.

"I will focus on strengthening, developing, and promoting the online Master of Natural Resources and certificate programs," Daniel said. "My work will include teaching online graduate courses, being a point of contact for existing and current online graduate students and assisting with program marketing and promotion."

She will also coordinate with the school's faculty and those from other colleges at Auburn, as well as faculty and professionals outside



Auburn to help develop online graduate courses.

Daniel received a bachelor's degree in natural resource conservation from Virginia Tech, prior to earning a Ph.D. in water resources from the University of Idaho. Before coming to Auburn, she was an instructor in a college natural resource management program, where she taught with online, hybrid and in-person modalities. She has also assisted with program evaluation and accreditation processes.

Daniel has also worked for the National Park Service and Natural Resources Conservation Service.

Mike Aspinwall

ASSISTANT PROFESSOR OF FOREST PHYSIOLOGY/ ECOPHYSIOLOGY

Mike Aspinwall is a tree physiologist with expertise in carbon, water and nutrient uptake and use, and genetic variation in growth and function of trees, in addition to the responses of plants and ecosystems to heat, drought and carbon dioxide.

At Auburn, Aspinwall will perform basic research that also has implications for natural and managed microsystems, as well as modeling.

"My research will largely focus on studying how and why tree species and populations vary in their response to temperature variability, heat stress and drought," Aspinwall said. "This research will inform conservation and sustainable management of forests."



Before earning both his master's degree and Ph.D. from North Carolina State University, Aspinwall received a bachelor's degree in landscape horticulture from The Ohio State University.

He then spent two years as a research scientist at the University of Texas at Austin and five years as a research scientist at Hawkesbury Institute for the Environment at Western Sydney University in Australia.

Aspinwall plans to teach physiology and ecophysiology of forest trees.

A Message from the Dean

Greetings alumni and friends,

We hope you've had ample opportunity this summer to enjoy the outdoors as a respite from these challenging times. As you'll see in our cover story, locally, the Kreher Preserve and Nature Center has seen increased use within our community as people have sought parks and other natural spaces for exercise, leisure and recreation during the pandemic. Owing to the nature center's immense popularity and the demand for its programs, we're pleased to share several building projects are in the works to accommodate this growth and the newly established nature preschool, which will also showcase the use of cross-laminated timber in commercial construction.

In this issue, we'll also introduce you to our newest faculty members hired this spring, Drs. Heather Alexander, Wesley Anderson, Mike Aspinwall, Jessica Daniel and Amy Counterman, as well as the addition of Dr. Shannon Brewer, the new lead of the Alabama Cooperative Fish and Wildlife Research Unit. We are confident their diverse expertise and experience will further enhance our forestry, wildlife and natural resource programs and make way for new teaching, extension and research opportunities.

You'll also learn about our faculty and students' achievements and delve further into their significant research discoveries to understand how our research is influencing policy and practices of scientists as well as citizens around the world within diverse fields ranging from geospatial to nanotechnology, to crises management to ecology.

Most importantly, in this issue, we recognize our donors and friends' generous support that allows us to continue our work to develop future industry professionals and new knowledge and science-based solutions to support the sustainable use of resources for the well-being of society.

On behalf of the School of Forestry and Wildlife Sciences, I wish you all a safe and festive holiday season!

Best Regards,

Janaki R.R. Alavalapati, Ph.D.
Dean, School of Forestry and Wildlife Sciences

School of Forestry & Wildlife Sciences

SFWS NEWS • Summer 2020

Dean Janaki R.R. Alavalapati
Associate Dean of Academic Affairs..... Scott Enebak
Associate Dean of Research..... Daowei Zhang
Extension Coordinator Becky Barlow
Managing Editor Jamie Anderson
Contributing Writer Teri Greene

Auburn Office of Communications and Marketing
Project Manager Mike Hales
Editor Megan Burmester
Designer Jennie Carson Hill

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

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Brewer selected to oversee Alabama Cooperative Fish and Wildlife Research Unit

Shannon Brewer is the new leader of the Alabama Cooperative Fish and Wildlife Research Unit, which operates within the Auburn University School of Forestry and Wildlife Sciences.

The unit facilitates cooperation among several entities — the Biological Resources Division of the U.S. Geological Survey, or USGS, universities, state fish and wildlife agencies and private organizations — in programs of research and education related to fish and wildlife resource management.

“My goal as unit leader is to improve the efficiency and productivity of the Alabama unit, including my own research program,” said Brewer, who earned a Ph.D. in fisheries and wildlife sciences from the University of Missouri. “My research will focus on questions of interest to our state and federal partners, specifically evaluating the effects of changing physicochemical conditions on the distribution and abundance of riverine species.”

Before taking on the new role at Auburn, Brewer was the assistant unit leader of the Oklahoma Cooperative Fish and Wildlife Research Unit and an assistant professor in the Department of Natural Resources Ecology and Management at Oklahoma State University. Prior to that, she was a supervisory fish biologist at the U.S. Fish and Wildlife Service.

When the Alabama Cooperative Wildlife Research Unit was established at Auburn in 1936, it became one of the first 10 cooperative research units in the nation. In 1966, the Alabama Cooperative Fisheries Unit was established, and the two units were combined in 1984.

Today, there are 40 cooperative fish and wildlife units in 38 states, with a national program office at the USGS in Reston, Virginia. All units are partnerships among the USGS, a host university, one or more state agencies and the Wildlife Management Institute.

The Alabama Cooperative Fish and Wildlife Research Unit concentrates its research efforts in four areas: Determining the effects of forest management practices on wildlife populations, investigating the ecology and management of riverine systems, investigating the status, life history, habitat requirements and population dynamics of species of conservation concern and investigating the ecology and management of fish and wildlife on landscape scales.



Congratulations to graduate student Osei Asafu-Adjaye who received the first place award for outstanding graduate student research in the field of wood and wood products from the Forest Products Society, a global network for forest products professionals.

Asafu-Adjaye’s current research, under the advisement of Regions Professor Brian Via, focuses on the development of formaldehyde free sustainable

bio-based self-curing adhesives with broader applications in wood composite manufacturing.

The Forest Products Society presented the 2020 Annual Excellence Awards during its 74th International Convention held virtually in July. Osei Asafu-Adjaye is shown presenting his research during a recent meeting of the Auburn University School of Forestry and Wildlife Sciences advisory council.

Pan publishes paper on the impact of urban green space in slowing the spread of COVID-19



New COVID-19 research by Auburn University faculty member Shufen Pan and student Yongfa You is the first to find that urban vegetation could slow the spread of COVID-19, a finding that was published recently in the journal *Geophysical Research Letters*.

“Urban vegetation could potentially influence the spread of COVID-19 in several ways, including improving air quality, maintaining psychological well-being and keeping social distancing,” said Pan, assistant professor and director of the GIS and Remote Sensing Laboratory in Auburn’s School of Forestry and Wildlife Sciences.

The unprecedented COVID-19 global pandemic has infected more than 38 million people and has resulted in the deaths of more than 1 million people.

The United States is the epicenter of the global COVID-19 pandemic, but the number of confirmed COVID-19 cases among counties varies greatly, ranging from zero to tens of thousands. The causes behind the large spatial variation in the transmission patterns of COVID-19 remain unclear, Pan said.

“Therefore, there is an urgent need to investigate the potential

factors that play a critical role in shaping the transmission patterns of COVID-19, which will be very helpful in controlling the speed and severity of COVID-19 transmission and making optimal decisions to cope with future public health emergencies,” Pan said.

Pan and You explored the effects of multiple factors — including urban vegetation, temperature, population density and the timing of government intervention on COVID-19 — on the magnitude and large spatial variation of the COVID-19 confirmed cases across U.S. counties.

“By using multi-source data such as remote sensing products, census data and climate data in conjunction with Google Earth Engine, a big data processing platform, our study shows that each 1% increase in the percentage of urban vegetation will lead to a 2.6% decrease in cumulative COVID-19 cases,” Pan said. “Additionally, the mediating role of urban vegetation suggests that it could reduce increases in cumulative COVID-19 cases induced by population density and baseline infection.”

The researchers say the study demonstrates the importance of urban vegetation in times of crisis.

“In addition to directly preventing the spread of COVID-19 by allowing for and encouraging social distancing, urban vegetation could also potentially influence the spread of COVID-19 through improving air quality and maintaining psychological well-being,” Pan said.

She added that during the crisis, urban green space provides a temporary refuge from family confinement and an opportunity to reduce stress through relaxation, which can improve mental health. For those reasons, she believes increasing the proportion of urban vegetation covering and arranging its spatial layout should play a major part in future urban planning, which has an important impact on individuals’ well-being.

“Our findings highlight the importance of urban vegetation as a resilient infrastructure, especially in times of pandemic crisis,” Pan said. “Increasing the proportion of urban vegetation coverage needs to be incorporated into future urban planning to strengthen the resilience of cities to public health emergencies.”

“This research can provide valuable policy implications for the government to achieve sustainable development goals such as good health and well-being as well as resilient and sustainable cities,” she added.

Janaki Alavalapati, dean of the School of Forestry and Wildlife Sciences, said the study is promising considering today’s health crisis as well as those that may erupt in the future.

“Hopefully, the findings of this research will help to provide additional insights in addressing this pandemic and other emerging diseases,” Alavalapati said.

Hanqin Tian, Solon and Martha Dixon Professor and Director of the International Center for Climate and Global Change Research at the Auburn University School of Forestry and Wildlife Sciences, said the study underscored the important role of trees in ameliorating the effects of the current pandemic as well as other areas of scientific concern.

“Planting more trees in urban areas not only slows down the spread of coronavirus, but also helps the climate,” Tian said. “Urban trees can cool the climate by absorbing carbon dioxide as part of the photosynthesis process and by evaporating water into the air.”

Research & Discovery

Dunning leads interdisciplinary research on COVID-19 messaging and response in vulnerable communities

An Auburn University researcher is leading a yearlong project that examines the COVID-19 pandemic in low-income, health-vulnerable communities in the three poorest states in the Southeast — Alabama, Louisiana and Mississippi — to examine how decision makers interpret and communicate information to compel collective action during a crisis.

Kelly Dunning, an assistant professor in the School of Forestry and Wildlife Sciences and director of its Conservation Governance Lab, said decision makers in federal, state, tribal and local agencies face a critical knowledge gap when it comes to strategies for communicating scientific recommendations within the nation’s most vulnerable communities.

The National Science Foundation, or NSF, awarded a rapid response research, or RAPID, grant of nearly \$150,000 to Dunning and her team. RAPID grants support research that has a severe urgency — in this case, the COVID-19 pandemic — with the goal of mobilizing the scientific community’s understanding of the crises and developing measures to respond to it.

“Specifically, we will analyze the effectiveness of science-based messages, how influential various sources of the messages were and the perceived trustworthiness of the institutions delivering COVID-19 information in low-income communities, compared to their wealthier counterparts,” she said.

Along with Dunning, key personnel in the interdisciplinary team are Janna Willoughby. Along with Dunning, key personnel in the interdisciplinary team are Janna Willoughby, an assistant professor in Auburn’s School of Forestry and Wildlife Sciences and Parrish Bergquist, an assistant professor at Georgetown University.

The team also includes Ryan Williamson, an assistant professor of political sciences in Auburn’s College of Liberal Arts and Sarah Zohdy, an associate professor at the School of Forestry and Wildlife Sciences.



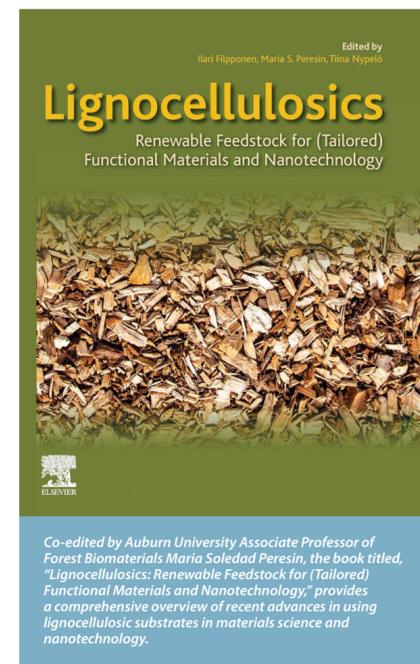
The objectives include structured conversations and listening sessions with at least a dozen decision makers from agencies at all levels.

These sessions, and research, will lead to the creation of a web application for decision makers across the country to apply the new data to their communities.

Dunning, who holds a Ph.D. from the Massachusetts Institute of Technology and has amassed more than 10 years of experience on environmental policy problems all over the world, said the

impact of these findings could improve the effectiveness of crisis messaging beyond our nation’s borders.

“Even though our project takes place in the U.S., we hope it can be replicated globally with findings relevant for a wide range of social and environmental hazards,” Dunning said.



Peresin co-edits book on groundbreaking uses of lignocellulosics

Maria Soledad Peresin, a faculty member in the School of Forestry and Wildlife Sciences at Auburn, has co-edited a book that calls attention to the enormous potential of a tiny, but powerful nanomaterial.

“Lignocellulosics: Renewable Feedstock for (Tailored) Functional Materials and Nanotechnology” explains how the increasing use of lignocellulosics as raw material allows ambitious reconstruction of smart green materials.

“More than a research project, this book was aimed to capture the cutting-edge research on functional lignocellulosic nanomaterials among the international community working in this subject,” Peresin said.

Lignocellulose, an abundant, renewable resource, is widely distributed in crop residues including, wheat straw, wood chips, dead branches, fallen leaves and a myriad of additional sources. Lignocellulosic materials are a mixture of natural polymers based on lignin, cellulose, hemicellulose and tannins.

“The research on the topic is vast, incorporating multiple disciplines,” she said.

“All the work compiled in the book from international contributors reflects the advances on high-performance and high value-added materials from biomass including wood, as well as agricultural byproducts, through a multi-array of disciplines including nanotechnology, chemistry, physics, optics, materials sciences and engineering, as well as product development,” Peresin said.

Peresin co-edited the book along with Ilari Filpponen, a former assistant research professor at Auburn University’s Alabama Center for Paper and Bioresource Engineering, and Tiina Nypelö, an associate professor in the Department of Chemistry and Chemical Engineering at the Chalmers University of Technology in Gothenburg, Sweden.

Co-editor Filpponen, who completed his post-doctoral research in bioproducts and biosystems at Aalto University in Finland, said the book is the first of its kind.

“The text nicely demonstrates the compiled interdisciplinary efforts of chemists and engineers to not only attain understanding but also to generate novel processes that will pave the way for developing new products from our vast lignocellulosic feedstock,” Filpponen said.

School of Forestry and Wildlife Dean Janaki Alavalapati said the work of Peresin and her team is innovative.

“This book has the potential to bring scientists in diverse fields together to discover as-yet unknown contributions that lignocellulosic biomass from forest species and agro-food waste streams can make to the revalorization of the national economy while providing great societal benefit,” Alavalapati said.

“This is yet another example of our faculty making great strides in research that will lead to new perspectives and products.”

The project germinated in 2015 from an idea Peresin and her colleagues organized at the Cellulose and Renewable Materials Division of the American Chemical Society. Representatives from Elsevier, a Dutch publishing and analytics company, offered to assist the group with the book.

Undergraduates form the Auburn chapter of Backcountry Hunters and Anglers

Undergraduate students recently established the first Alabama collegiate chapter of Backcountry Hunters and Anglers at Auburn University. Clay Colley, a sophomore in biosystems engineering, spearheaded the forming of the chapter and now serves as its president.

The Backcountry Hunters and Anglers, or BHA, is a non-profit organization that seeks to “ensure North America’s outdoor heritage of hunting and fishing in a natural setting, through education and work on behalf of wild public lands and waters.”

BHA is the voice for public lands in North America. The organization takes action to fight for favorable legislation and restoration of public lands and waters.

In the 2020 spring semester, the Auburn University BHA chapter became the first collegiate chapter in Alabama and was recently featured in BHA news celebrating the passing of the Great American Outdoors Act.

Chapter faculty advisor Assistant Professor Kelly Dunning is excited to see how members will integrate the organization’s goals on campus to increase student’s interest in land conservation.

“Backcountry Hunters and Anglers is a unique organization that combines fun with civic duty in activities like cleanups on public lands. They also do a lot of great policy advocacy that spells big bipartisan wins for conservation across all 50 states. I am proud to be the faculty advisor for Auburn’s chapter and proud of the



Pictured here are student members during the first meeting of the Auburn chapter of Backcountry Hunters and Anglers.

hard work that students like Clay and others have put in to make this chapter a reality.”

With solid membership at their initial outset, the chapter desires to grow even more throughout the academic year. During their first semester on campus, the chapter was able to hold two meetings, one event and a volunteer opportunity. The chapter’s first event was the Tree Rat Classic, a squirrel hunting tournament held with the Mississippi State chapter. To participate, hunters had to clean up a bag of trash from nearby public lands.

“The event was a great success even though the Mississippi State chapter took home bragging rights. In the future, we will include prizes and possibly other collegiate chapters in the competition,” Colley said.

Chapter members have also volunteered at the annual Barbour County Youth Hunt, where they taught kids about the outdoors through learning stations. For future youth hunts, the group

plans to host a station that teaches children about public land use ethics in hopes of improving their condition.

Colley and other members are excited to spread the word about the new BHA chapter and encourage others to learn about the importance of access and management of public lands in Alabama.

“Our goals for the next year include hosting our first large event and finding our voice in the fight for public lands and waters. We also look forward to introducing as many people to the outdoors as possible, so they too can enjoy this privilege we have been granted as public landowners,” Colley said.

Because Alabama has less public land than many other states due to privatization, it is critical to keep public lands in state or federal ownership. The establishment of this chapter shows the passion that Auburn students have for the responsible use and management of Alabama’s outdoors.



Chalkowski awarded Fulbright Scholarship

Kayleigh Chalkowski, a School of Forestry and Wildlife Sciences doctoral student, has been awarded a Fulbright Scholarship for the 2020-21 school year as part of the celebrated educational exchange program sponsored by the U.S. government.

Chalkowski, of East Berne, New York, is working toward her doctorate in wildlife science. A graduate of Cornell University with a bachelor’s degree in biological sciences with a concentration in ecology and evolutionary biology, Chalkowski received a Fulbright Study/Research award to Madagascar.

“Overall, I feel like my goals as a scientist have a real opportunity here to come to fruition,” Chalkowski said. “That is, to conduct field research that will improve the health of

endangered, threatened species and at-risk human populations.”

Fulbright Study/Research award winners design their own projects and will typically work with advisers at foreign universities or other institutes of higher education.

The Fulbright Scholarship Program is a flagship international educational exchange program sponsored by the U.S. government and is designed to increase mutual understanding between the people of the U.S. and the people of other countries. Recipients are selected on the basis of academic or professional achievement, as well as demonstrated leadership potential.



Lepczyk chosen as a Provost Fellow

Christopher Lepczyk, professor of biology and wildlife conservation in the School of Forestry and Wildlife Sciences, along with six other Auburn University faculty members, were chosen for the 2020-21 SEC Academic Leadership Development Program.

The SEC Academic Leadership Development Program seeks to identify, prepare and advance academic leaders for roles within SEC institutions and beyond. It has three components: A university-level development program designed by each institution for its own participants, two SEC-wide three-day workshops held on specified campuses for all program participants and a competitive fellowship designed to provide administrative growth opportunities for former fellows.

Christopher Lepczyk is a professor of biology and wildlife conservation in the School of Forestry and Wildlife Sciences.

Lepczyk began his faculty career at the University of Wisconsin-Milwaukee as a visiting professor, after which he was an assistant and associate professor at the University of Hawaii at Manoa. In 2014, he moved to Auburn’s School of Forestry and Wildlife Sciences. Lepczyk originally hails from the Midwest, where he grew up in Michigan before attending school at Hope College, where he earned a bachelor’s degree in biology and geology. Later, he earned a master’s degree in wildlife ecology at the University of Wisconsin-Madison and a dual doctorate in fisheries and wildlife, and ecology, evolutionary biology and behavior at Michigan State University.

“We are very proud of Dr. Lepczyk’s accomplishments,” said Janaki Alavalapati, dean of the School of Forestry and Wildlife Sciences. “His research in the fields of ecology and conservation biology is advancing management and policy decisions across the U.S. and providing unparalleled learning opportunities for our students.”



SFWS hosted 22 forestry graduates who returned to Auburn July 10-11 to sit for the Alabama Registered Foresters exam. Delayed twice due to COVID-19 restrictions, it was the first “event” held in the school since March 11.

Lepczyk serves as lead editor on nation’s first handbook for citizen scientists

An Auburn University researcher and faculty member is the lead editor of the newly released Handbook of Citizen Science in Ecology and Conservation, the nation’s first comprehensive guide for both professional scientists and citizen scientists — avid science enthusiasts within communities who carry out essential, hands-on work for research projects.

Editor Christopher Lepczyk, a professor of wildlife biology and conservation in the Auburn University School of Forestry and Wildlife Sciences, said the handbook aims to provide tools to citizen scientists to help them start or become involved in projects. While the focus is on ecology and conservation, the lessons in the book are applicable to most citizen science projects, he said.

“This is very much a book for practitioners and the public, as much as it is for professional scientists,” Lepczyk said. “Our goal was very much oriented at creating a book that can be read and used by both an interested lay person as well as the scientific community. Thus, we worked to present the concepts of citizen science in an easy-to-read and user-friendly manner, without a lot of jargon or citations.”

The idea for the book came about years ago in Milwaukee after Lepczyk and two close friends and colleagues — Tim Vargo and Owen Boyle, co-editors of the book — worked on a citizen science project focused on migrating birds that used public parks as stopover locations.

“We discussed how valuable it would be to have a handbook that described how to carry out a citizen science project,” Lepczyk said. “Although there were papers and some short technical reports, no handbook existed.”

After holding a symposium on citizen science at the Ecological Society of America meeting, the three proposed the book to the University of California Press, which they accepted.

Lepczyk began work on the handbook along with Boyle, chief of species management at the Wisconsin Department of Natural Resources Natural Heritage Conservation Program, and Vargo, manager of research and community science at the Urban Ecology Center in Milwaukee.

Rather than using the terms “scientists” and “non-scientists,” Vargo said he refers to the two categories as professional scientists and community scientists because, “in the end, we are all contributing to science.”

“Citizen science provides collaborative opportunities between the two groups, as each group brings particular talents and support,” Vargo said. “The very first scientists were citizen scientists, and then we created the university system where most professional scientists became trained. But outside the auspices of the ivory tower, people have been contributing so much to our understanding of how the world works.”

“Professional scientists bring a strong and important skillset, and community scientists bring a strong — usually different, but equally important — skillset to projects.”

- Tim Vargo

He cited the names of some familiar pioneering “citizen scientists,” including Charles Darwin, Thomas Jefferson and Increase Lapham.

“Professional scientists bring a strong and important skillset, and community scientists bring a strong — usually different, but equally important — skillset to projects,” Vargo said.

“In the handbook, the editors aim to tear down some longstanding myths: That only professional scientists can engage in scientific research; that community involvement decreases the integrity of science; and that science is outside the grasp of the community,” Boyle said.

“We worked hard to bring together a group of citizen science practitioners with many decades of experience in the full diversity of citizen science projects in conservation and ecology that vary in scale, geography, duration, organizational support and level of volunteer involvement,” Boyle said.

“I hope the handbook not only inspires new citizen science projects on under-studied species or in under-surveyed areas, but that it can also provide fresh ideas and approaches for existing projects. Citizen science is crucial for scientists’ understanding of the natural world. And for citizen scientists, it’s just plain fun.”

The handbook draws from the experience of professional scientists from universities, government agencies and non-governmental organizations to present a set of best practices and important processes to consider when starting or strengthening citizen science projects.

Citizen science expert Rebecca Christoffel, sole proprietor of Christoffel Conservation, said the volume is an important addition to the literature in the field, not only for scientists who are developing citizen science projects, but also for the individuals involved in those projects.

“It really lays out the nuts and bolts of designing, implementing and assessing a citizen science program,” said Christoffel, who plans to use the book in a class she is developing for naturalists involved in citizen science. Each chapter is authored by individuals who have expertise in the topic discussed.”

Dean Janaki Alavalapati of Auburn’s School of Forestry and Wildlife Sciences applauded the efforts of Lepczyk and his team.

“Citizen science projects have always been valuable and are becoming more and more common,” Alavalapati said. “With the publication of this handbook, Dr. Lepczyk and his co-editors have provided a much-needed, comprehensive guide for both professional scientists and the citizen scientists who contribute so much to research.”

The Handbook of Citizen Science in Ecology and Conservation is available through Amazon, Barnes & Noble, Walmart and other retailers.



HANDBOOK OF CITIZEN SCIENCE IN ECOLOGY AND CONSERVATION

EDITED BY CHRISTOPHER A. LEPCZYK | OWEN D. BOYLE | TIMOTHY L. V. VARGO

WITH A FOREWORD BY REED F. NOSS

Christopher Lepczyk, a professor of wildlife biology and conservation in the Auburn University School of Forestry and Wildlife Sciences, served as lead editor and a co-author of the Handbook of Citizen Science in Ecology and Conservation, the first practical and comprehensive manual for creating, implementing or improving natural science research and monitoring projects that involve collaboration between scientists and the general public.



Going Back to Nature

Auburn's Kreher Preserve and Nature Center provides welcome respite during pandemic

by Teri Greene



For most of 2020, the world has been on lockdown. Sheltering in place, staying home and getting accustomed to life spent indoors is a new way of life. A walk through the neighborhood or even into the backyard, for a while, was a bit of a treat. That did not last long.

But in the unprecedented era of COVID-19, Auburn University's Kreher Preserve and Nature Center, or KPNC, has become a hub of outdoor activity, a much-needed respite for folks seeking ways to experience and embrace life in nature. What better place to find it than 120 acres of forest with six miles of trails? Throughout the pandemic, KPNC has retained its regular hours — from dawn to dusk. And people have increasingly flocked there nearly every minute of the day.

"It has been incredible," said Michael Buckman, manager of the KPNC, an outreach program of the School of Forestry and Wildlife Sciences. "Since the height of the stay-at-home period in March and April, the KPNC parking lot has been consistently full — day in, day out. That kind of attendance is unusual for weekdays, but the community is taking full advantage of the safe environment the nature center offers for recreation and socialization."

Buckman said the center doesn't keep a count of daily visitors, but the staff has estimated that nearly every day since mid-March, between 75 and 150 people have visited.

"That's over 10,000 visitors in only four months, a 30% increase over our normal spring/summer attendance," he said. The surge includes not just KPNC regulars but also first-time visitors who have quickly turned into repeat visitors. On most mornings, some people who are accustomed to working out in gyms have made the center their go-to running and exercise spot. They find it safer and, to their surprise, they like it better.

And the thriving success has not gone unnoticed by public officials, including John Wild, president of the Auburn-Opelika Tourism Bureau.

"From my perspective the KPNC has been a life saver for lots of families during this time," Wild said, calling it "a great place to spend time."

"I hope that turns into lots of memberships after people realize all the benefits even during sheltering at home."

Kids, parents, catch a breath of fresh air

"There has been no shortage of frenzied parents looking for new activities for the kiddos. They started bringing their children to play for the first time around March," Buckman said, "and they are now coming every week because their kids love it so much. We have been thanked many times for staying open and for keeping the resources available to the community through the pandemic."

Among the grateful crowd is Auburn faculty member Neha Potnis, whose daughter, Avanita, took part in the KPNC summer camp — which went on as planned in a newly coordinated method, with 32 kids divided into four groups of eight, as well as daily temperature and symptom checks each morning at drop-off. Masks were required on the rare occasion that 10 or more campers gathered together and counselors always remained masked.

"It's such an awesome camp for the kids during these challenging times," Potnis wrote to Buckman, sending along a separate thank-you note from her daughter that included a drawing depicting the creatures she met there, including a bird, a bee buzzing near a flower, a snail, a butterfly and even a bat.

"Thank you teachers for the exciting ecology camp," Avanita wrote on the picture. "I had a lot of fun."

Her mom continued: "You have also set an excellent model for following proper protocols during the pandemic and yet letting kids learn and enjoy the camp."

For the kids, it was a time to run, play and socialize with friends they had not seen in months, Buckman said.

At the outset of the crisis, KPNC had to cancel its scheduled events for the following two months with a plan to reschedule them for July, unless COVID-19 precautions prevented that. The brand-new Woodland Wonders Nature Preschool was also canceled — at least the in-person portion. KPNC Educational Director Sarah Crim created a remote instruction for the preschoolers through a devoted Facebook page that allowed students to interact weekly with classmates and teachers through virtual instruction and kid-submitted videos showing off the activities they completed.

The lessons included a weekly opportunity for the students to visit the center with their families to take on challenges, as well as Zoom meetings that brought all the kids and teachers together to talk about what they were learning.

Staying safe, forging ahead

To continue operating, KPNC has significantly lowered the maximum capacity of public programs to enforce its social distancing program. Sanitation stations were created throughout key areas of the property, and as with kid campers, visitors who attend scheduled programs, events and workshops are pre-checked with no-touch thermometers and asked specific questions, recommended by the Centers for Disease Control, to assess COVID-19 risk.

Still, in such a spacious area, people rarely encounter others who are not part of their group.

"In every case we've witnessed, social distancing was maintained," Buckman said. "Large groups are more unusual now, I think because of general awareness in the community about the heightened risks of gatherings. When it does happen, we do see masks go on without having to say anything. Our official policy is that masks are required when you are within six feet of a person from a different household."

He said the staff enforces these precautions for any programming the center offers, but there is enough space that participants can social distance enough to limit the need for masks.

The adventures continue not just for kids, but for adult programs as well, including nature workshops and classes. And the enthusiasm is showing in that realm, too. A recent program called Science on Saturdays: Medicinal Plants, sold out.

It's unusual for adult programs like this to reach full capacity, but the KPNC staff believes adults share kids' eagerness to go outdoors, socialize and engage in new activities.

The recent program "A Musical Walk in the Woods," coordinated with the Auburn Area Community Theater, had performers belting out Broadway tunes among the trees — with singers keeping a distance of at least 15 feet from visitors, who were separated into groups of 10 or fewer. At KPNC, even live theater isn't off limits in the time of COVID.

"The entire event took place along the trails, so everyone was spaced out and taking advantage of all the benefits of being outside," Buckman said.

Expansions to come

Looking forward, two significant additions to KPNC are in the works: The Pond Pavilion and an innovative classroom building that will incorporate the property's elements of nature into the construction.

Because Auburn University building science students are constructing the Pond Pavilion, work on it has been delayed since March, when the university began its remote instruction period. Buckman said construction of the pavilion, made possible by the F. Allen and Louise K. Turner Foundation and the McWhorter School of Building Science, resumed in the fall semester, with the first phase — including piles, columns and the entire roof — completed in October. The second phase, set for completion in the spring semester of 2021, will finish off the building, including a solar panel kit, granted by Rotary, that will provide all electrical needs.

"The completion of this pavilion will open up the north side of KPNC to incredible opportunities," Buckman said. Those include a rental venue overlooking the turtle pond and expansion of educational programs, workshops and major events, not to mention a much-needed restroom area.

The classroom building, to be located on the property's south side, is the work of architect Tom Chung of Leers Weinzapfel Associates. It will be nestled into the forest landscape and will serve as a showcase for sustainable cross-laminated timber, or CLT, construction. At about 3,000 square feet, it will contain two large classrooms and a central space, the learning trail, that will be full of interactive and live-animal displays.

"The building will serve as the base of operations for the Woodland Wonders Preschool, with a general-use classroom providing more opportunities for programs, workshops and classes," Buckman said. It will also serve as a safe, conditioned space during inclement weather for camps and field trips that would otherwise need to be cancelled.

"And with tranquil, beautiful, 360-degree views of the forest, the building and its large event deck will be one of the area's best venues for special events, weddings, receptions, reunions and more."

"Funding for the new facility is around 70% secured," Buckman said, "but its completion will require the generosity of supporters and partners." With an eventual return to normal life, KPNC is likely to see its surge of enthusiasts continue to visit regularly and, with that excitement, a newfound support of this essential oasis.



Hikers, runners and bird watchers enjoy over six miles of trails and a marked 5k course which traverse 120-acres of forests, waterways, and other natural features located at the Kreher Preserve and Nature Center in Auburn, Alabama.

"The entire event took place along the trails, so everyone was spaced out and taking advantage of all the benefits of being outside."

— Michael Buckman



A camper shows off a fort his group built from natural materials during the Kreher Preserve and Nature Center's Summer Ecology Camp, a nature-based week-long day camp offered annually for children grades first through seventh. During the pandemic, precautions have been taken to socially distance students into smaller groups, temperature and symptom checks are conducted at camper drop-off and masks are required for students and counselors.



The Kreher Preserve and Nature Center's conveniently located nature playground invites children to explore a play space offering a rich, naturalistic experience complete with mounds, ditches, logs, tunnels, fallen trees, boulders and some creative structures, including a beaver lodge, tree house and eagle's nest. Following health and safety guidelines to curb the spread of the coronavirus, visitors to the nature playground are required to socially distance from other families. The center requests that parents bring sanitary wipes for equipment and wash children's hands frequently.

SPOTLIGHT on alumni



BEN SKIPPER '05

Ben Skipper, a 2005 wildlife sciences graduate, didn't set out to become an authority on birds, but as curator of the Collection of Birds at Angelo State University, where he is also an assistant professor, he oversees the teaching and research collection of 2,500 bird specimens. That is where he has landed, and he couldn't be more pleased.

Skipper earned a master's degree from the University of Nebraska at Kearney in 2008, and a Ph.D. in wildlife science from Texas Tech in 2013, before joining Angelo State's biology department. He is a member of the Raptor Research Foundation, the Wilson Ornithological Society, the Association of Field Ornithologists, the Southwestern Association of Naturalists and the Texas Ornithological Society.

Growing up in rural Abbeville, Alabama, Skipper was immersed in the outdoors, and his parents encouraged exploration of the natural world. But as a kid, he didn't realize he could make a career of the aspects of nature that he treasured.

After exploring his options at Auburn, that eventually changed.

He began his studies at Auburn as an engineering major, following in the footsteps of his father, Don Skipper, a 1967 Auburn engineering graduate. In the beginning, he just wasn't aware of the vast variety of careers that would be available for a graduate with a wildlife degree.

"When I finally made the decision to change majors, I knew that I wanted an education and hopefully a career that was more in touch with the natural world and the organisms that populate it," Skipper said. "At Auburn, I had come to learn that this meant either the wildlife degree or a biology degree. I wanted a curriculum that would offer me the opportunity to take a broad swath of courses that dealt with everything from plants to vertebrates — and not just their biology, but also their ecology. In the end, the B.S. in wildlife science from Auburn's School of Forestry and Wildlife proved to be the right degree for me."

"By far, the best experiences I recall were the field trips and hands-on learning that I received, some originating in the School of Forestry and Wildlife Sciences, and others in the Department of Biology, but in all of these I was able to see how

the knowledge gained in the classroom could be applied to real-world experiences."

As curator of birds within the Natural History Collections, Skipper trains students on the proper techniques for making scientific specimens and oversees loans of specimens to researchers at other institutions. As an assistant professor, he teaches courses ranging from general zoology to upper-level classes such as biogeography, ornithology and animal behavior, and he mentors a small cohort of graduate students who are undertaking their first independent research activities under his supervision.

"It took a couple of inspiring professors and engaging learning experiences to convince me that I could go on to a career in the sciences, and that it was perfectly acceptable to be deeply interested in the natural world and passionate about uncovering its secrets," he said. "So for me, the opportunity to take a slightly disinterested student and get them excited about science and nature is one of the most rewarding experiences of my life. The fact that I get to do it each week makes it even better."

What advice would Skipper give to a student on a similar career path?

"Get involved. In class, in labs, in student clubs, in volunteering — do as much as you can, because all of it will help you land that first job or that position in graduate school. A career in wildlife isn't like that of other fields. Yes, the GPA matters, but so do the intangibles, the experience and the letters of reference you'll need for that first position. The only way to grow these skills and earn good references is through the interactions you'll get in classes and labs, field trips and volunteer opportunities."

"It's these opportunities that will provide you with the experience needed to land that first position. I got my start by responding to a flier in Funchess Hall where a Ph.D. student was looking for a volunteer. Although I've been many places since then, I can trace all of my career back to that single flier and my decision at the time to get involved. Who knows where the next volunteer opportunity could lead you?"



Auburn University alumnus Christoph Stuhlinger, standing to the front right of Dean Janaki Alavalapati, has established the H. Christoph Stuhlinger Fund for Excellence in Support of Urban Forestry, an endowment to further urban forestry initiatives in the School of Forestry and Wildlife Sciences at Auburn.

Stuhlinger establishes fund to further urban forestry initiatives at Auburn

Auburn University alumnus Christoph Stuhlinger has established the H. Christoph Stuhlinger Fund for Excellence in Support of Urban Forestry, an endowment to further urban forestry initiatives in the School of Forestry and Wildlife Sciences.

"The purpose of establishing and endowing this fund is to raise awareness and encourage students to include urban forestry and arboriculture-related courses in their curriculum of study," Stuhlinger said, who received a bachelor's degree in forest management in 1980 from what was then the Department of Forestry in the School of Agriculture.

"Better yet, a more formal program or curriculum path in urban forestry, such as a minor, certificate or similar option should become available," Stuhlinger added.

A native of Huntsville, Alabama, Stuhlinger earned a master's degree in forestry from Louisiana State University, where he worked for several years as a research associate. In 1987, he joined the Maryland Department of Natural Resources-Forest Service, working in the Baltimore area for more than 16 years as a watershed and county forester and urban forester.

In 2003, Stuhlinger became the university system forester at the University of Arkansas' Division of Agriculture/Arkansas Forest Resources Center, where he oversaw the sustainable management of the university's 13,400 acres of forestlands statewide, conducted applied research and coordinated

field days and workshops focused on both rural and urban forestry and tree care activities.

He retired from that position in 2018 and returned to his hometown, where he is a volunteer at the Huntsville Botanical Garden and an instructor for the OLLI program through the University of Alabama in Huntsville.

An ISA Certified Arborist since 2000, Stuhlinger was a member of the Arkansas Urban Forestry Council's Board of Directors from 2004 to 2017. He also chaired the Monticello Tree Board and was a member of the UA-Monticello Tree Board.

growing in a UCF environment," he said, adding that about 80% of U.S. citizens live, work and play in a UCF environment.

Increasing populations and urbanization will cause more forest loss, making the proper management of urban forests even more important and making basic knowledge of managing trees in those areas essential. He said that is why existing forestry programs need to include educational opportunities for students who are interested in urban forestry and arboriculture.

director, said the endowment will contribute to urban forestry growth within the school in numerous ways.

"The primary goal of the Fund for Excellence is to fund an annual undergraduate scholarship to an urban forestry student," Crozier said. "If no students qualify for a scholarship in a given year, the funds will support the school's urban forestry research, conferences, career promotion, visits from guest experts and other ventures, as determined by Dean Alavalapati."

Stuhlinger said he is encouraged that Alavalapati, and the school, are willing to enhance the new program with the additions of a minor and certificate in urban forestry. Work is underway to create and add these two options.

"I have been very pleased with how well my endowment and proposal to enhance urban forestry at the Auburn School of Forestry and Wildlife Sciences has been received," he said. "I am very happy to know that they agree with me about the importance of including urban forestry in their students' education."

"Chris Stuhlinger's generous gift will allow the school to contribute to the maintenance and care of healthy urban trees and all the benefits that they provide."

- Dean Janaki Alavalapati

When Stuhlinger studied at Auburn and LSU in the late 1970s and early '80s, most forestry schools focused only on traditional forestry. Though urban forestry and arboriculture had been practiced for a long time, there were few formal study programs centered on those fields.

In Maryland and Arkansas, his on-the-job training in urban forestry and arboriculture taught him about the importance of managing trees in communities. He said he believes today's forestry and natural resources students need a basic understanding of urban and community forestry, or UCF, which includes the wildland-urban interface, or WUI.

"Students may not fully understand other values of trees and forests and their management challenges, especially in urban and urbanizing environments. Some unique management skills are required for trees

"Students should have at least some basic knowledge of UCF/WUI issues to help prepare them for emerging resource management problems, and to build links with urban populations," Stuhlinger said. "Well-rounded forestry students should also have some basic arboricultural skills."

Janaki Alavalapati, dean of the School of Forestry and Wildlife Sciences, said the funding is well-timed.

"As urbanization is increasingly on the rise, the need for more forestry students to pursue careers in urban forestry and arboriculture is significant," Alavalapati said. "Chris Stuhlinger's generous gift will allow the school to contribute to the maintenance and care of healthy urban trees and all the benefits that they provide."

Heather Crozier, the school's development



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GSEI Graduate Lands First Job With Help From Advisory Council Member

Emily Hildebrand, a graduate of the School of Forestry and Wildlife Sciences, became the first student in the school to earn a degree in geospatial and environmental Informatics, or GSEI, in the spring. Not long after — despite a wavering job market in the time of COVID-19 — she started a job with the Georgia-Alabama Land Trust, where she is now lending her valuable expertise in the emerging field.

But she said she could not have landed the position without the support of Kevin Kurtz, a member of the School of Forestry and Wildlife Sciences advisory council. After Hildebrand met Kurtz last fall, they began working together on her applications for entry-level positions in the geographical information systems, or GIS, field. When Kurtz was appointed to the advisory council in February, he took his support to the next level.

Kurtz said he was glad to help.

“Emily did an exhaustive search for a job in the GIS field, and I was so fortunate to be able to assist her in a small way,” said Kurtz, a 1984 Auburn University alumnus who provides consulting services to clients of the Department of Defense. “When I met Katherine Eddins of the Georgia-Alabama Land Trust at the school’s advisory council meeting in February, she told me of an opening for a GIS position. Subsequently, I sent her Emily’s resume. Emily had two interviews and was offered the job.”

As GIS manager and land steward at the Land Trust, Hildebrand assists with all GIS needs and goes out to the field to collect data focusing on land easements. She said she loves her new job and is happy to work with a non-profit organization. She said she’s also fortunate that someone was able to guide her to it.

“The alumni network at Auburn is very powerful, and I hope to help students, now that I am an alumna, the way that Mr. Kurtz helped me.”

—Emily Hildebrand



“I decided it would be an amazing opportunity to learn something with so many outlets of the field to go in,” said Hildebrand, who has been passionate about science and space since she was a child.

In 2019, Hildebrand completed an internship as a crew trainer at the U.S. Space and Rocket Center in Huntsville, an experience that she said further developed her professional network and deepened her understanding of geospatial technology applications for space exploration.

Kurtz’s role on the advisory council is to provide advice, guidance and support of the field. Hildebrand said he is not only a mentor, but a role model.

“I know Mr. Kurtz will put his expertise to use and make the major even better,” she said. “The alumni network at Auburn is very powerful, and I hope to help students, now that I am an alumna, the way that Mr. Kurtz helped me.”

Kurtz, a U.S. Navy veteran, worked for that branch of the military for 20 years as a surface warfare officer before taking on leadership positions with the U.S. Fleet Forces Command and SYS/Kratos Defense and Security Solutions, where he conducted and led naval experimentation.

This student and her mentor were able to find her an ideal job in a far from ideal time. Hildebrand said graduates in her field have an advantage in that their options are so broad and their expertise is so in-demand.

“I know it is hard to find a job after college and now with everything going on, it adds a lot more pressure and stress with companies not hiring,” she said. “But I do hope that those who are struggling to get into the workforce keep trying and don’t give up. There are opportunities out there.”

“I am very grateful for everything Mr. Kurtz has done, putting him on the advisory council is the best thing for the GSEI program,” she said.

When Hildebrand came to Auburn, geospatial and environmental informatics was a new degree, taught collaboratively by faculty of the School of Forestry and Wildlife Sciences and the Colleges of Agriculture, Sciences and Mathematics, Engineering and Business.

Geospatial technology refers to software applications that are used to acquire, manipulate and store geographic information. All sectors of the economy now use the field’s tools — geographic information systems, the global positioning system, satellite-based remote sensing and computer simulations — for decision-making and planning.