STEPHEN F. AUSTIN
STATE UNIVERSITY

Arthur Temple College of
Forestry and Agriculture

news

Fall 2020

A Semester of Change

The COVID-19 pandemic results in alterations in course delivery and student life at SFA's Arthur Temple College of Forestry and Agriculture and universities across the U.S.

Arthur Temple College of Forestry and Agriculture

news

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from the **dean**

Dear alumni and friends,

Many of you may remember when I taught the undergraduate forest ecology course. I spent a great amount of time in lecture on the concept of adaptation, often using the Phenotype (P) = Genotype (G) + Environment (E) equation as the foundation of our discussions. I believe understanding the concept of adaptation is fundamental to being an effective natural resources manager. Because of our training and experiences, I can't think of anyone better able to adapt to the rapidly changing environment brought on by the ongoing COVID-19 pandemic than those of us trained in agriculture, environmental science, forestry or geospatial science. As the feature article highlights, our faculty and staff members and students had to rapidly adapt to remote delivery of all courses halfway through the spring 2020 semester. This was no small feat for our college, which is well-known for its excellence in providing hands-on learning experiences. All the credit for successfully completing the volatile spring semester belongs to the faculty and staff members and students for their flexibility, understanding and patience. The university community worked hard during the summer to develop protocols based on federal and state guidelines that would help reduce risks of COVID-19 infection and still allow students to have the on-campus learning and living experiences they strongly desired. At the time of publishing this newsletter, we are progressing through the fall semester with a near normal teaching and learning experience. Significant credit goes to the university community for steadfastly complying with the COVID-19 safety protocols.

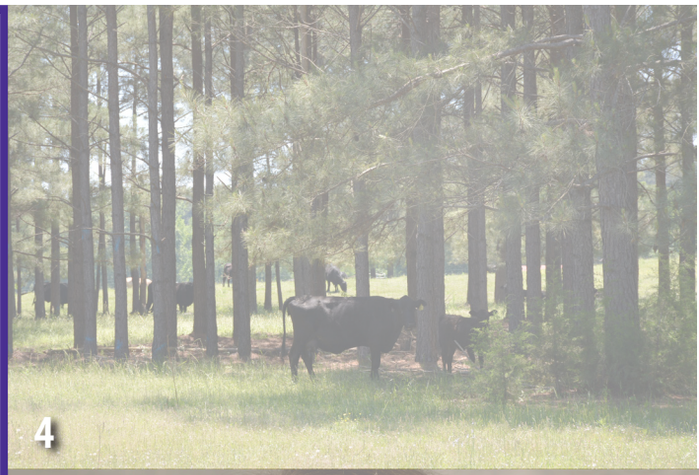
A transformational, hands-on learning experience is critical to the success of our graduates. As a result, we hope many of the adaptations we have made due to COVID-19 are temporary. However, the changes forced upon us by the COVID-19 pandemic have produced innovations by our faculty members that will result in long-term adaptations that enhance learning for our students. For example, I believe there will be an increased use of virtual resources to complement, but not replace, face-to-face, hands-on teaching and learning in our academic programs.

While change is the feature of this newsletter, you should take comfort in knowing that some things have not changed — specifically, the many recognitions our faculty members and students received during the past year for their outstanding professional contributions to teaching, leadership and service. Please take time to read about their accomplishments.

The ATCOFA family hopes this newsletter finds you and yours safe and well. Please send us a message and let us know how you are doing or drop by and visit when your travels bring you near campus.

All the best,

-Hans Williams



ATCOFA to establish silvopasture demonstration area

Thanks to a Conservation Innovation Grant from the Natural Resources Conservation Service, SFA's Arthur Temple College of Forestry and Agriculture is moving forward with the establishment of a silvopasture demonstration area at the Todd Agricultural Research Center.

"Silvopasture is an agroforestry practice that combines the production of trees with an understory component of forage for livestock," said Jason Grogan, research associate with the Arthur Temple College of Forestry and Agriculture.

Grogan explained that the system provides myriad benefits, including soil protection, carbon sequestration and improved weight gain in cattle during the hot summer months, as well as overall efficiency in land utilization.

The combination of long-term income from timber sales along with annual income from livestock production can be economically beneficial to producers — especially those with relatively small acreage tracts.

The demonstration area is unique in that it will provide landowners with insight into transitioning to a silvopasture system from a heavily forested area, as well as from bare pastureland.

Currently, Grogan is overseeing the thinning of a dense pine plantation to create open rows in which native grasses will be planted for livestock forage. In an adjacent area without trees, brush will be cleared to allow for the planting of native grasses and loblolly pines.

Grogan said pines will be planted in groups of three rows with a 30-foot gap between each grouping. In addition to space for grazing, this gap also will allow hay to be baled.

"The area we're converting from bare pasture to silvopasture will have to remain free of livestock for about three years until the pine trees are large enough to not be damaged by livestock," Grogan said.

Although the area will heavily focus on demonstration and outreach, Grogan said there will be opportunities for research.

"We're hoping to look at the efficiency of using goats to control woody vines and vegetation rather than herbicide when converting a forest to silvopasture," Grogan said.

Landowners interested in learning more about this agricultural system won't be the only beneficiaries of the new demonstration area — the SFA cattle herd also will graze there.

A public field day is tentatively scheduled for January. For more information on silvopasture or the demonstration area, contact Grogan at (936) 468-5588 or jgrogan@sfasu.edu.

Department of Agriculture breaks ground on new Beef Center

Rendering of the proposed Beef Center developed by architects Goodwin-Lasiter-Strong

Workers have broken ground on the construction of a new beef facility at the Todd Agricultural Research Center.

The original Beef Center was destroyed in an early morning fire in November 2018.

In 2019, the SFA Board of Regents approved up to $900,000 for the construction of a new teaching facility, and the university is actively seeking contributions to assist in outfitting the new facility with state-of-the-art equipment for students to utilize as they learn proper care of livestock, marketing of cattle, and the sale and fabrication of retail products.

To date, $67,000 has been donated by public and corporate entities, including Luminant, a subsidiary of Vistra Energy; Texas Farm Credit and Animal Science Products. Together, these generous donations will assist the college in replacing the former facility.

Since the fire, students have conducted laboratory work in a make-shift facility with temporary pens for the cattle, making record-keeping and animal care more difficult.

“As chair, my goal has always been to provide our students with the best learning environment possible,” said Dr. Joey Bray, chair of the Department of Agriculture. “After the fire, my fellow faculty members and I worked diligently to get the temporary structure in place so courses were able to continue.

Despite these efforts to provide suitable facilities, enrollment in the popular animal science program has declined.

“We have been able to replace the cattle-handling equipment to properly care for our beef cattle herd, but we were only able to establish a temporary shelter for this equipment,” Bray said. “The temporary shelter has limited the number of students who can safely and effectively participate in the hands-on labs for these courses.”

The barn portion of the facility is projected to be completed in August with the classroom and office portion ready for use in fall 2020.

To donate online, visit sfasu.edu/give. Select “other,” specify “Beef Center” and follow the designated steps to complete the donation.

Checks made payable to the SFA Office of Development also may be sent to P.O. Box 6092, Nacogdoches, Texas, 75962. Please include a note stating the contribution is for the SFA Beef Center.

Dr. Daniel Unger receives prestigious Carl Alwin Schenck Award

Dr. Daniel Unger, Kenneth Nelson Distinguished Professor of geospatial science within SFA's Arthur Temple College of Forestry and Agriculture, was awarded the 2019 Carl Alwin Schenck Award from the Society of American Foresters during the SAF National Convention held November 2019 in Louisville, Kentucky.

The national award recognizes individuals who display a notable and sustained record of excellence in forestry education through outstanding service to the field and the development of dynamic, personal teaching methods.

"To be recognized by my fellow colleagues at the national level regarding my commitment to forestry education throughout my career is a humbling experience," Unger said. "I truly enjoy interacting with the students on a daily basis."

Unger is one of three SFA forestry professors who have earned the prestigious award. Dr. David Kulhavy, Laurence C. Walker professor of forest entomology, received the award in 2010, and Dr. Brian Oswald, Joe C. Denman Distinguished Professor of fire ecology, received the award in 2002.

"I would be surprised if there is another forestry program in the country that could ever claim to have three Schenck award winners on their active faculty," said Dr. Hans Williams, dean of the Arthur Temple College of Forestry and Agriculture. "It's hard to imagine a better recognition of the innovation and effectiveness of the teaching and learning provided by our faculty members."

Carl Alwin Schenck, the award's namesake, was a German-born and educated forester who founded the first forestry education program in the U.S. in 1898.

Dr. David Creech receives lifetime achievement award from Native Plant Society of Texas

Dr. David Creech, SFA professor emeritus of agriculture and director of SFA Gardens, received the Charles Leonard Weddle Award for lifetime achievement in the field of Texas native plants from the Native Plant Society of Texas during its 2019 banquet in League City.

"Dr. Creech has spent the better part of the past 30 years including native plants in his classroom material at SFA, encouraging nursery professionals to include native plants and counseling landscape professionals to do the same," said Kim Conrow, president-elect of the state board of the Native Plant Society of Texas.

Creech joined SFA as an assistant professor of horticulture in 1978 and was instrumental in the development of the Pineywoods Native Plant Center, SFA's Mast Arboretum and the Ruby and Gayla Mize Azalea Gardens, as well as Jimmy Hinds Park. Creech's dedication to the horticulture profession has been recognized through numerous other awards, including Honorary Membership Award for Lifetime Achievement through the Texas Nursery and Landscape Association and the Sidney Meadows Award for Distinguished Achievement from the Southern Region of the International Plant Propagator's Society.

"This is really an award for all of SFA," Creech said. "Our work with native plants at SFA Gardens goes back to the 1980s with our original focus on three endangered species — the Neches river rose mallow, Texas trailing phlox and Texas white firewheel. These three are still precariously hanging on in the wild but are quite secure in garden collections across the South due much in part to our work at SFA."

In addition to Creech's focus on the growth and sustainability of SFA's 60 acres of campus gardens, he also is invested in a number of research initiatives, including the evaluation of new woody ornamental plants for the landscape industry, viability of kiwifruit production in East Texas, and salt and hurricane-tolerant plant materials for the Gulf Coast.

"Dr. Creech is the consummate professional plantsman. His internationally recognized leadership in the conservation of native plant species is a significant complement to our teaching, research and outreach on the sustainable management of our natural resources," said Dr. Hans Williams, dean of SFA's Arthur Temple College of Forestry and Agriculture.

The award is named in honor of Dr. Charles Leonard Weddle, an internationally recognized plant hybridizer and plant breeder. His interests included the development of native plants and wildflowers for seed production and growth throughout the world.

Dr. Candis Carraway named Distinguished Young Educator

Dr. Candis Carraway, SFA assistant professor of agriculture, was named the 2020 Distinguished Young Educator by Non-land Grant Agriculture and Renewable Resources Universities.

This national award recognizes meritorious teaching at a NARRU institution and is awarded after a rigorous application and evaluation process.

“I firmly believe Dr. Carraway is the epitome of a distinguished young educator,” said Dr. Joey Bray, chair of SFA’s Department of Agriculture. “She is a passionate educator who truly cares for each and every student she teaches and takes pride in mentoring our students and getting them to realize their true abilities.”

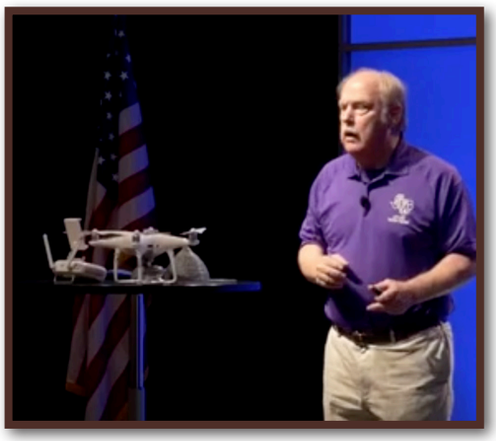
Carraway served as a secondary agricultural science teacher for 16 years before earning a doctoral degree in agricultural communications and education from Texas Tech University. She joined SFA in 2017 and teaches both undergraduate and graduate courses in agriculture. She also supervises all pre-service secondary agricultural science teachers.

Since joining SFA, Carraway has created two new courses to help strengthen SFA’s agriculture education curriculum and hosted SFA’s first Curriculum for Agricultural Science Education Animal Science Institute that was attended by agriculture educators from seven different states.

Carraway maintains a robust record of leadership, including, but not limited to, serving as the president for the Agricultural Consortium of Texas and membership on the board of directors for the Texas FFA Association. She also is co-chair for the SFA University Internship Strategy Committee, a member of the Arthur Temple College of Forestry and Agriculture’s Undergraduate Research Committee and a member of the American Association of Agricultural Education Professional Development Committee.

This is the first time an SFA professor has received this honor.

Professor presents at forum sponsored by U.S. Endowment for Forestry and Communities



Dr. David Kulhavy, Laurence C. Walker professor of forest entomology within SFA's Arthur Temple College of Forestry and Agriculture, was one of a select group of forestry professionals from across the nation chosen to present at the first Forest Innovation Reviews Forum sponsored by the U.S. Endowment for Forestry and Communities.

Kulhavy's presentation focused on the myriad ways in which geospatial technologies, and more specifically unmanned aerial systems, commonly known as drones, are contributing to the field of natural resources conservation and education.

Kulhavy said this technology allows users to complete projects, such as the creation of an orthophoto map, in a matter of hours — a task that traditionally took days to finish.

Students within SFA's Arthur Temple College of Forestry and Agriculture have access to this technology and, with guidance from Kulhavy and other professors, they engage in novel investigation and research. Examples of past student projects include determining the accuracy of drones in tree height measurement, monitoring forest health and quantifying land use change.

"This is what is really neat in terms of teaching the concepts of research and service — you have your automatic project right there," Kulhavy said. "That's what we do — we put the drones in the student's hands."

The selection process for this forum was a multistage procedure that included interviews, as well as the development of multiple proposals and video presentations. The 2019 forum, hosted by the University of Georgia, was created as a way to share well-formed ideas about forests, forest management, forest products and forest-rich communities through short, powerful talks. Kulhavy's full presentation is available at youtube.com/watch?v=T8Z79AgluNE.

Dr. Christopher Schalk named URC Mentor of the Year

SFA's Undergraduate Research Conference executive committee selected Dr. Christopher Schalk, assistant professor of forest wildlife management, as this year's URC Mentor of the Year.

Schalk sponsored the Arthur Temple College of Forestry and Agriculture's top scholars with their project "Does Installation Method Affect Snake Entanglement in Erosion Control Blankets?"

The Mentor of the Year award is supported by the Division of Academic Affairs.

Dr. Jeremy Stovall awarded Faculty Senate chair plaque in recognition of excellence

Dr. Jeremy Stovall, SFA professor of forestry, was presented with a plaque recognizing his dedication to excellence as Faculty Senate chair by SFA President Dr. Scott Gordon.

“I want to congratulate Jeremy Stovall for leading our Faculty Senate during this past year,” Gordon said. “We will all remember 2019-2020 as the academic year that saw a worldwide health crisis as a result of COVID-19. Jeremy was a shining star and handled this critical leadership role with careful thought and compassion.”

The Faculty Senate, which includes 32 faculty members, serves as an advisory body to the provost and president, acting as one of the main means of communication between faculty members and administrators. Senators are elected by the faculty members of each college, the library and non-tenure track faculty members.

Chairing the senate for a year, Stovall served out of a desire to learn more about how SFA functions as an institution. As circumstances began changing in mid-March, Stovall worked closely with the senate and administration to find solutions.

“COVID-19 presented the Faculty Senate with unprecedented challenges in quick succession these past several months,” Stovall said. “Fortunately, we had talented faculty members serving on the senate who did all they could to meet these challenges. Dr. Gordon, Dr. Bullard and the entirety of the SFA administration worked diligently to collaborate with the Faculty Senate and our leadership, providing an excellent example of shared governance.”

To learn more about the Faculty Senate, sfasu.edu/facsenate/.

Dr. Daniel Unger recipient of 2019 Faculty Achievement Award for Research

Dr. Daniel R. Unger, professor of geospatial science and the Kenneth Nelson Distinguished Professor, received the 2019 Faculty Achievement Award for Research at the 31st annual SFA Gala.

Since joining the Arthur Temple College of Forestry and Agriculture faculty in 1998, Unger has routinely engaged in research initiatives spanning multiple fields, all of which keep his expertise current in rapidly evolving technical fields.

In the past five years alone, Unger has published 38 articles and one book, and he has served as creator and editor-in-chief of the Journal of Geospatial Applications in Natural Resources. Since 2014, he also has been a part of approximately 130 conference and poster presentations and produced 16 journal abstracts.

“Dr. Unger is an effective educator producing ‘society-ready foresters’ with the avocation of ‘make a difference, work outdoors and use high-end technology’ in the field of geospatial science in natural resources,” said Dr. Hans M. Williams, professor and dean of the College of Forestry and Agriculture. “Dr. Unger takes an active role in the scholarship of teaching and learning, emphasizing hands-on learning in both field and laboratory environments.”

Unger studied at Purdue University, where he graduated with two Bachelor of Science degrees, one in general management and the other in forestry. He received his Master of Science in forest resources from Pennsylvania State University in 1991 before attending the University of Idaho, where he earned a doctoral degree in forestry, wildlife and range sciences in 1995.

“I have had the good fortune of working with Dr. Unger since his arrival in 1998,” said Dr. David Kulhavy, SFA Laurence C. Walker Distinguished Professor. “Since that time, Dr. Unger has dedicated himself to the scholarship of teaching and learning in spatial science, an ever-changing discipline.”

Unger is skilled in the use of unmanned aerial systems, or drones; Pictometry, a hyperspatial remote-sensing platform; Google Earth Pro; and Resistograph, a high-resolution needle drill device that measures values and density of wood, among many other geospatial and forestry technologies.

Unger actively seeks funding in support of geospatial science and other endeavors, garnering 27 research grants totaling approximately $1.2 million.

“Dr. Unger always tries to incorporate research in his teaching,” said Dr. I-Kuai Hung, SFA professor of spatial science and Lacy H. Hunt Distinguished Professor. “I team up with him at our Forestry Field Station, where I see firsthand how he incorporates up-to-date technologies while still maintaining the fundamental skill sets needed for this profession.”

Chanelle Svehla

Chanelle Svehla joined ATCOFA as an academic advisor in spring 2020.

In this postion, Svehla will provide educational guidance for students by assisting them in the planning of course schedules, recommending courses and determining appropriate educational solutions for the variety of situations students may encounter.

Svehla earned both a Bachelor of Science in Forestry and a Master of Science in agriculture from SFA, providing her with valuable insight that will benefit current students.

She is currently developing a Conservation Careers summer camp that will take place on the SFA campus and will introduce high school students to the field of natural resources management, as well as the career opportunities available.

“I am excited to see this program sprout roots and take off over the years to come,” Svehla said.

Prior to joining ATCOFA, Svehla served as an extension agent for both the Louisiana State University AgCenter and Texas A&M Agrilife Extension Service.

“I am thrilled at the opportunity to work for such a great college and university and help the next generation of conservation and natural resource advocates,” Svehla said.

Student chapter of The Wildlife Society awarded national honors

The Wildlife Society, an international professional organization of leaders in wildlife science, named SFA's student chapter as its national 2020 Student Chapter of the Year.

The annual award recognizes exceptional achievements by student chapters in the promotion of professional standards, outreach and education, as well as advocacy for conservation policy decisions.

"To be recognized across the nation is a huge compliment to our officers and students," said Jake Hill, forest wildlife management major and president of the SFA student chapter of The Wildlife Society. "It's a testament to the quality of our college, our forest wildlife program and the university itself."

Earlier this year the chapter received statewide recognition when it was named Student Chapter of the Year by the Texas Chapter of The Wildlife Society.

Hill said during the past year the student chapter focused on developing its student membership as active wildlife professionals.

One of the chapter's most public initiatives was the development of a policy program to advocate for the bipartisan Recovering America's Wildlife Act, which would make supplemental funds available to states for the management of wildlife most in need of conservation. These efforts included writing letters and conducting education campaigns, communicating with state representatives and partnering with other conservation organizations to advance the bill.

In addition, the chapter amplified partnerships with other conservation organizations, such as the Texas Parks and Wildlife Department, the National Wild Turkey Federation and other smaller nongovernmental organizations.

This spring, the chapter completed a wetland restoration project with Conservation Equity Partners, a local SFA alumni-owned environmental consulting firm. Through this partnership, the chapter planted more than 5,000 trees and gave away approximately 10,000 trees to the public.

"The students involved with the SFA student chapter of The Wildlife Society are outstanding ambassadors for SFA and are well known for their willingness to serve the profession and the community," said Dr. Hans Williams, dean of SFA's Arthur Temple College of Forestry and Agriculture.

The SFA chapter also donated a portion of its annual fundraising proceeds to assist a newly formed student chapter of The Wildlife Society at another Texas university.

Winning chapters receive a plaque, as well as a $1,000 travel grant to attend the annual Wildlife Society Conference. The name of the chapter also will be added to a permanent plaque on display at The Wildlife Society's headquarters in Bethesda, Maryland. The SFA student chapter was recognized at the national conference held virtually in September.

To learn more about the SFA student chapter of The Wildlife Society, its mission and current initiatives, email sfasuthewildlifesociety@gmail.com.

Graduate student contributes to glacial record at two national parks

According to the U.S. Environmental Protection Agency, glaciers around the world have lost significant mass since the 1970s, due in part to warming trends in global temperatures. While the concept of massive sheets of ice may seem foreign to Texans, their importance can't be overstated.

"Glaciers hold 75% of our fresh water, and they cover 11% of the Earth's land area — they play a lot of different roles," said Brianna Clark, SFA environmental science graduate student in the Arthur Temple College of Forestry and Agriculture. "For example, in some countries the glacial meltwater is a source of hydroelectric power. In some alpine communities they are the sole source of drinking water."

Given their global importance, Clark sought to shed light on current trends in glacial coverage within two U.S. national parks by performing area and volume calculations of the landforms using digital remote sensing and geographic information systems.

Clark explained that the study of glaciers, known as glaciology, has been radically expanded thanks to satellites surveying the Earth.

In 2013, NASA and the U.S. Geological Survey launched the Landsat 8 satellite, which orbits the Earth every 99 minutes and captures approximately 740 scenes of the planet each day in nine electromagnetic spectral bands.

Clark said the bands represent different portions of the electromagnetic spectrum and have wavelengths of varying size. Researchers viewing the satellite imagery online are able to add or subtract observable bands to create ratios that improve the visibility of different landforms.

"With my project, I used two ratios — the normalized difference snow index and the normalized difference glacier index," Clark said. "There have been a lot of studies that used the normalized difference snow index, but not a lot have used the normalized difference glacier index. My project used a combination of both."

The two parks at the center of her research, Glacier and Mount Rainier National Parks, were chosen based on their representation of two distinct geographic and climactic regions known as the Intermountain Region and the Pacific Northwest.

"Most studies have focused on the plausibility of using satellite remote sensing for measuring specific glacier parameters or measuring one specific region, but there has been a lack of research combining satellite remote sensing and climatic factors to assess the differences in deglaciation among regions," Clark said.

To do this, Clark used satellite imagery to measure the glacial area of her study sites for the years 1985, 2000 and 2015. She then used contour lines to make digital elevation models in order to calculate the change in volume of the glaciers. In addition to the satellite imagery, Clark also compared climate trends between the two regions by measuring cumulative degrees above zero for each study year, as well as precipitation.

Ultimately, Clark found that within the 30-year period of the study, Glacier National Park lost 27.5% of its glacial coverage, while Mount Rainier lost only 5.7%.

"The differences in these percentages can largely be attributed to the warmer temperatures of the Intermountain Region coupled with lower amounts of snowfall compared to the Pacific Northwest," Clark said.

She added the Earth undergoes natural cycles between warm and cool temperatures, but this typically takes place over a much longer time scale than currently being experienced.

"Glaciers melting isn't always something to be alarmed about because it's something that naturally occurs," Clark said. "But given the rate at which they are decreasing, we are to some extent contributing to it through anthropogenic climate change."

As glacial research continues, Clark's work will provide a valuable record of the state of these glaciers, as well as how geospatial technologies can facilitate similar research in the future.

SFA student and student chapter recognized at national forestry conference

The Society of American Foresters named Stephen F. Austin State University senior Kathryn Christensen as a 2019 Diversity Scholar and recognized the SFA student chapter of the SAF as one of the top three student chapters in the nation during the organization's national conference in Louisville, Kentucky.

The SAF Diversity Scholar Program is designed to promote leadership and create community within the SAF by encouraging the involvement of a variety of people in the profession. As the 2019 Diversity Scholar, Christensen participated in the organization's Diversity and Inclusion Working Group and was paired with a mentor who works in the field of natural resources.

Christensen, a forestry major, said she advocates for expanding access to outdoor recreation in marginalized communities.

"My love for the outdoors came from my mother's amazingly creative ways to get us in touch with nature on a budget," Christensen said. "My past experiences of feeling left out because of the inability to afford camps, cruises and more luxurious ways of viewing nature has only fueled my passion for giving opportunities to those who find outdoor recreation unattainable."

Christensen serves as the president of the student chapter of the SAF, and along with other organization members, she was instrumental in the SFA chapter being recognized on a national stage for its accomplishments in service, involvement with other natural resource organizations and building community relationships.

Graduate students win top honors at statewide research symposium

Three SFA students received first place honors for their research presentations at the annual Ecological Integration Symposium.

Jordan Griffin and Zachary Hutchens, both SFA biology majors, won first place in the symposium-wide undergraduate poster contest for their project investigating potential impacts of the non-native Sheepshead minnow on the Red River Pupfish, a species native to Texas.

Connor Adams, an SFA forestry graduate student, won first place in the symposium's graduate student division that focused on fish and reptiles with his oral presentation titled "Trophic and Community Structure of Snake Assemblages in Shortleaf Pine Forests with Different Management Regimes."

The annual symposium, which generally draws leading scientists and students from across the fields of ecology, evolutionary biology and conservation to the Texas A&M College Station campus, was held virtually this year as a result of health restrictions in place to help prevent the spread of COVID-19.

"These results show our students are producing high-quality research that is valued by their colleagues," said Dr. Christopher Schalk, SFA assistant professor of forest wildlife management. "It also shows they can effectively disseminate their results and communicate their ideas using distance-learning platforms."

SFA student selected to serve as National Teach Ag ambassador

Jordan Stanford, a sophomore agricultural development major at SFA, was recently selected as one of 14 university students from across the U.S. to serve as a 2020-21 National Teach Ag ambassador.

“I have always felt called to agricultural education,” Stanford said. “To help others find their calling in this amazing career is something I look forward to as a part of this program.”

Stanford serves as a student representative on the Teach Ag Texas Committee. The national ambassadors trained during summer 2020 and will later be tasked with engaging students visiting the Teach Ag booth at the 93rd National FFA Convention in Indianapolis, Indiana. They also will host similar booths and workshops in their own states to promote the need for high-quality, diverse agriculture teachers.

The National Teach Ag Ambassador Program was developed in an effort to address the current, nationwide high demand for agriculture teachers in the U.S. This need is the result of retirements, current program growth, new programs opening, as well as current teachers leaving the profession to explore other career opportunities.

“I am excited for Jordan, and I know she will make a great contribution in recruiting future agriculture teachers in Texas,” said Dr. Candis Carraway, assistant professor of agriculture at SFA. “We know the training she receives through this program will enable her to make a bigger impact in our state.”

The National Teach Ag Campaign is an initiative of the National Council for Agricultural Education, led by the National Association of Agricultural Educators. Funding for the National Teach Ag Campaign is provided by the CHS Foundation, Corteva Agriscience, Growth Energy and BASF as a special project of the National FFA Foundation. For more information about the campaign, visit http://www.naae.org/teachag.

College hosts first annual undergraduate research showcase

More than 50 ATCOFA students presented posters and discussed their research with faculty, staff and visitors at the college's first annual Undergraduate Research Showcase held in December 2019.

"Our college has always provided our undergraduate students with opportunities to conduct research as part of their coursework or through the grant-funded projects by our faculty," said Dr. Sheryl Jerez, professor of environmental science and chair of the research showcase committee. "With our own showcase, students are able to improve their presentation skills, learn from the work of others and disseminate the results of their projects—an important component of the research process. "

The top eight finalists chosen at the college showcase were selected to represent the college at the university-wide Undergraduate Research Conference, which was ultimately canceled due to safety concerns surrounding COVID-19.

Undergraduate Research Showcase Top Eight

1. "Does Installation Method Affect Snake Entanglement in Erosion Control Blankets?"
Krista Ward, Nicholas Schiwitz and Kasey Job

2. "Mission Tejas State Park : A Preliminary Study on the Effects of Recreational Activity Upon Abiotic Factors"
Sophie Fielder, Karlen Cantu, Liliana Zapata, Faith Dolan, Julian Thomas and Melanie Dehnisch

3. "Avian Communities Respond to Restoration Treatments in East Texas Pine Forests"
Eamonn Thurmond

4. "3D Preservation of Koo-Hoot Kiwat, Caddo Mound State Historic Site"
Joseph Gerland

5. "Increased management frequency decreases lizard abundance in forest ecosystems"
Dylan Thompson

6. "On the Diversity of Erosion Control Products: Implications for Snake Entanglement"
Kasey Jobe, Nicholas Schiwitz, Krista Ward

7. "Mediterranean House Geckos Exploit Novel Resources in a Recipient Lizard Assemblage"
John Michael Arnett

8. "Toxicological Effects of Household Chemicals on Artemia salina Development and Survival"
Hannah Bays and Sarah Hall

Forestry graduate student awarded Best Poster at SFA Graduate Research Conference

Winners of SFA's 2020 Graduate Research Conference were announced after organizers restructured the annual event as a result of the ongoing pandemic.

"COVID-19 brought an immediate halt to our university's classes on campus as well as all events, including our annual Graduate Research Conference," said Dr. Pauline Sampson, dean of the Office of Research and Graduate Studies. "Our great committee jumped into action to change the format from a face-to-face to virtual conference.

"Because one of the conference's main purposes is to prepare graduate students to present at other professional conferences after they graduate, we did not want them to lose the chance to showcase their work and also be able to include it on their résumés."

Nineteen research posters and 15 research papers were selected for virtual presentation. They were chosen by members of the Graduate Research Committee, which comprised Dr. Sarah Savoy, associate professor of psychology; Dr. Linda Levitt, professor of communication; Dr. Perky Beisel, professor of history; Dr. Frantisek Majs, assistant professor of agriculture; Dr. Todd Whitehead, associate professor of kinesiology and health science; Dr. Alexandra Van Kley, professor of biology; Amanda Breitbach, assistant professor or art; Dr. Robyn Whitehead, assistant professor of kinesiology and health science; Dr. Leslie Cecil, professor of anthropology; Brooke Ashley, graduate student representative; and Sampson.

Best Poster was awarded to Liam Wolff for his research titled "Assessing Occupancy and Detection of Bachman's Sparrow (Peucaea aestivalis) in East Texas." Wolff is a graduate student in the Arthur Temple College of Forestry and Agriculture, and his advisor was Dr. Christopher M. Schalk, assistant professor of forestry.

Best Paper was awarded to Sarah Whitfield for her research titled "Synthesis and Characterization of CO Releasing Bipyridine Palladium Flavonolate Complexes: Potential Anticancer Agents." She was a graduate student in the College of Sciences and Mathematics, and Dr. Xiaozhen Han, assistant professor of chemistry, was her advisor.

Story by Christine Broussard, SFA Marketing and Communications

Sylvans win fifth consecutive Arkansas State Lumberjack Competition, host SFA Lumberjack Games

SFA's timbersports team, the Sylvans, won its fifth consecutive collegiate title at the annual Arkansas State Lumberjack Competition held during Timberfest in Sheridan, Ark.

SFA students placed first in the double buck crosscut, single buck crosscut, Jack and Jill crosscut, men's bowsaw, underhand chop and axe throw.

"It matched last year as one of the Sylvans' most dominant victories in Timberfest competitions," said Dr. Jeremy Stovall, professor of forestry and Sylvans faculty advisor.

Arkansas House of Representatives member Ken Bragg, an SFA alumnus and past Sylvans president, officiated the competition, which was organized by fellow SFA alumnus Karl Hansen, among others.

The Sylvans also hosted the Lumberjack Games during SFA's 2019 Homecoming.

Stovall said campuswide lumberjack competitions were held in the past, but they have not taken place for at least a decade.

"From what we've heard, the original events had pretty diverse participation from all across campus," Stovall said. "We're trying to revive that SFA tradition."

Teams of five competed in a range of timbersports, including the axe throw, single and double crosscut sawing, caber toss and tug of war.

"A lot of people come to SFA and aren't sure what it really means to be a lumberjack or don't know SFA has a timbersports team," said John Mike Arnett, forestry senior and Sylvans president. "I think it's a great way to get our names out there and let people experience what it is like to be a lumberjack."

The event served as a fundraiser for the Sylvans to participate in the Southern Forestry Conclave, which was ultimately canceled due to the COVID 19 pandemic.

Summer ’20 Internships

Deanna Alpert

Environmental science senior Deanna Alpert completed an 11-week internship with Austin Energy’s Nacogdoches Generating Facility, one of the largest wood-fired biomass plants in the U.S.

As an intern, Alpert completed a variety of tasks related to environmental compliance, such as taking water samples and assisting in document preparation for Texas Commission on Environmental Quality air audits. Alpert also participated in safety audits throughout the plant and addressed any issues that were found.

“My favorite part about this internship was that there was so many different things to do, so I was constantly learning throughout the whole summer,” Alpert said.

Marshall Jones

Forest management sophomore Marshall Jones completed a three-month internship with Cibolo Nature Center and Farm located in Boerne.

Jones was tasked with a wide range of duties, including invasive plant removal, frog surveys, locating and protecting cedar elm samplings from deer, as well as creating a list of procedures for surveying post oak mast production.

“This internship has given me a new perspective on how science is carried out in the field,” Jones said. “It showed me how much of land management is coming up with creative solutions and carrying those ideas out with the resources available.”

Founded in 1990, the Cibolo Nature Center and Farm is located 30 minutes northeast of San Antonio and spans a portion of Cibolo Creek, which provides recharge for the Edwards and Trinity Aquifers.

Trey Birdwell

Forest management senior Trey Birdwell completed a summer internship with Weyerheauser in De Queen, Arkansas. In this roll, Birdwell monitored the survival rate of trees in different forest stands and eventually presented his data and findings to company leadership.

“I feel like this experience has benefited me because I got a look at what foresters get to do on a daily basis and see how the information I have learned in school is put to use,” Birdwell said.

Birdwell added his favorite aspect of the internship was viewing the different silivicultural techniques used in the region.

Nina Sisemore

Environmental science graduate student Nina Sisemore is serving as a chemist technician and water lab operator at the North American Energy Services Nacogdoches generating facility. The position initially began as an internship, but evolved into an extended employment opportunity as she completes her graduate degree.

In this position, Sisemore conducts a number of tests on water samples, inventories chemicals and records the daily water chemistry from the various analyzers in the lab. She also maintains the generating facility's oxidation tanks, raw water tanks, cooling tower and other equipment with proper chemical applications. Additionally, Sisemore assists with state-mandated paperwork and audits by the Texas Commission on Environmental Quality.

"I asked the people I work with to try and point out all the things that are universally practiced at any power plant or lab so I can take that knowledge with me when I go other places in my career," Sisemore said. "Having real-world experience will help my understanding of compliance and regulation, as well as the use of many different types of instrumentation, measuring equipment and sampling techniques."

Sisemore said it is likely she will incorporate her job experience with her research evaluating the hydrogeochemical composition of natural springs in the Piney Woods region.

"There are going to be a lot of water samples and different parameters measured, recorded and analyzed for my thesis," Sisemore said. "I have already thrown out ideas to my bosses, and they seem open to it."

If you have news or images you would like to share, email Sarah Fuller, outreach coordinator, at fullersa@sfasu.edu.

Agriculture

Jordan Stanford

Under the guidance of Dr. Candis Carraway, agriculture development major Jordan Stanford evaluated the successfulness of the Texas FFA Excellence Conferences held across the state for high school FFA members.

The excellence conferences are three individual conferences held for sophomore, junior, and senior FFA members," Stanford said. "The conferences are held by highly-trained presenters who had a series of specific objectives they needed to cover throughout their individual conference."

To assess whether or not these objectives were met, Stanford developed a pre-and-post survey that prompted participants to rate their ability on the specified objectives.
"Each conference's surveys were analyzed, and all had a statistical significance in participant scores before and after the survey," Stanford said. "This indicates the Texas FFA Excellence Conferences were successful in meeting the desired objectives."

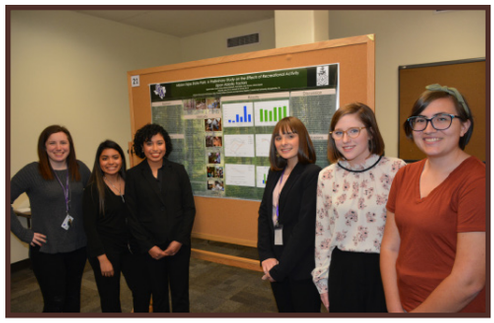
Stanford presented her findings at the American Association for Agricultural Education.

"I've just completed my first year of college, and I have loved every second of it," Stanford said. "I feel my involvement in the ATCOFA has given me all of my accolades and successes and can't wait to see where the future leads me! Axe 'Em!"

Environmental Science

Sophie Fielder, Karlen Cantu, Liliana Zapata, Faith Dolan, Julia Thomas and Melanie Dehnisch

A team of environmental science students initiated a preliminary study to determine if human activity has any discernible effect on abiotic factors located in Mission Tejas State Park.



Between September and October 2019, the team made four visits to collect air, water and soil measurements at seven sites frequented by visitors, such as camp sites, as well as undisturbed land not open to visitors.

The team explained that the park, bound by the Neches River, has many visitors due to the abundance of recreational opportunities and historic and archaeological significance.

Based on the results of the team's data analysis, it was determined that there are statistically significant differences in soil pH, soil bulk density, soil-water infiltration, water pH, and dissolved oxygen between human impacted and non-impacted sites.

Forestry

Kasey Jobe

Forestry minor Kasey Jobe worked with Dr. Christopher Schalk to compare the probability of snake entanglement by implementing novel installation techniques of erosion control products.

"Techniques such as simply burying the edges of the products, indicated through our study, greatly reduce the probability of entanglement or mortality," Jobe said. "The purpose of this study was to demonstrate other methods of erosion control products installation that will reduce the impact of these products within ecological communities and present a possible solution to managers and contractors employed in highway construction."

Field work took place at the SFA Experimental Forest, as well as Boggy Slough Conservation Area during summer 2019. Field technicians captured snakes by hand and box traps. Following the field experiment, the snakes were returned to the approximate location of their capture.

"Overall, the experience is what I have come to enjoy the most my research opportunities with ATCOFA," Jobe said. "Before working on my first research project, I had a small idea of what I wanted to do for the rest of life, but due to this experience, I have found something that I would like to make a career."

Jobe and fellow undergraduate researchers involved in the project have since published their findings in peer-reviewed journals.

Spatial Science

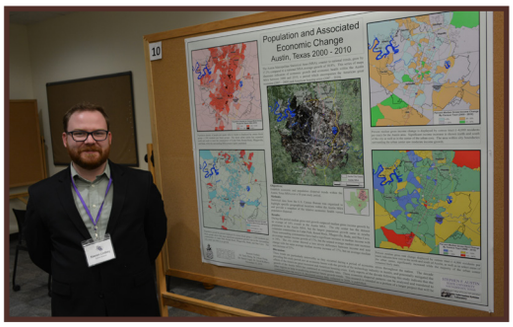
Keenon Lindsey

Keenon Lindsey utilized geographic information systems to study the rapid growth in Austin during the decade that included the Great Recession and the housing crisis.

"Austin was the fastest-growing metropolitan statistical area in the United States by percent from 2000 to 2010 at almost four times the national average," Lindsey said. "I wanted to see if I could use GIS to study where this growth was happening within the Austin area and whether I could develop metrics to judge whether or not this growth was healthy."

Lindsey said he compared changes in cost of living with changes in household income and mapped these across Austin to identify regions where their growth had aligned or diverged.

"Areas where the cost of living had grown more than the average income were seen as areas where the growth was potentially unhealthy," Lindsey said.



Lindsey plans to incorporate the results of the 2020 census once the data becomes available.

"The accessibility of professors and support staff is fantastic here," Lindsey said. "Anytime I hit a speed bump I can always send an email or stop by someone's office and work through the problem. I learn just as much discussing things like this as I do in the classroom."

Agriculture

Cheyenne Swor

After noticing local beef farmers were actively inquiring about educational opportunities to improve herd management, Cheyenne Swor set out to see how she could best serve these producers.

"This led to me looking into previous surveys that identified prevalent management practices in the beef cattle industry," Swor said. "Research on this subject had not been conducted in this area of East Texas."

To collect this information, Swor developed and distributed surveys to feed stores and farms throughout Angelina, Nacogdoches and Cherokee counties.

These surveys allowed Swor to obtain a better understanding of area producers including demographics, herd size, herd health, reproductive management practices and more.

The information provided by these surveys is a critical piece of missing information that will now allow county extension agents, as well as ATCOFA faculty and staff, to provide the most meaningful educational opportunities for beef cattle producers in the region.

"I enjoyed the conversations and learning about the producer's different management practices," Swor said. "Through my research, I have implemented new nutrition and reproductive practices into my own beef cattle operation."

Swor plans to continue her career in the beef cattle industry with the ultimate goal of pursuing a doctoral degree in animal breeding.

Environmental Science

Sarah Zagurski

Sarah Zagurski's research is helping determine how long acid mine drainage will last at an East Texas coal mine with the goal of aiding mining companies in determining the best treatment method for their water systems.

"Acid mine drainage is a big concern at coal mines, especially in East Texas," Zagurski said. "I am doing an in-lab soil leaching study coupled with groundwater monitoring in the field to help make the determination."

Zagurski said that naturally occurring acid-forming materials known as metal sulfides exist beneath the Earth's surface. Acid is created when these materials are exposed through the deep excavation process used in coal mining operations. Controlling and monitoring its presence is a part of the land remediation process that occurs once a mine is no longer active.

"My project uses a combination of skills and knowledge I learned from both geology and environmental science," Zagurski said. "I enjoy getting to apply both disciplines on a project that could actually help a company decide the actions they will take to address their environmental concerns."

Following graduation, Zagurski plans to pursue a career in environmental consulting that will allow her to work on a variety of environmental remediation projects.

Forestry

Gary White

The hybridization of loblolly pine and longleaf pine occurs naturally throughout their native range to produce Sonderegger pine.

"The hybridization between these species may have led to improved fitness for pine communities growing at the warmer and drier Western edge of their range in East Texas," said forestry graduate student Gary White.

However, White said the increased use of genetically-improved loblolly pine in intensive silviculture has shifted forest community compositions toward loblolly pine dominance while reducing the potential for natural hybrids.

"This reduction of hybrid potential could lead to the diminished adaptability of pine species in East Texas, a region that is projected to become warmer and drier due to climate change," White said.

With this challenge in mind, White is investigating the adaptability of hybridized native pines and the spatial relationships of their genetic identities.

"This study will investigate loblolly and longleaf pine hybridizations using chromatography, a more cost effective alternative to DNA analysis," White said. "Chemical signatures useful in differentiating the species and their hybrid will be referenced to plot GPS coordinates and be displayed in ArcGIS to determine where local differences may occur for populations across their distributions."

White said the ultimate goal is to map the findings to determine where species and their hybrids are occurring.

In the past, morphology and site characteristics have been exclusively used for species differentiation at a regional scale," White said. "We hope to add to this information through chemically telling them apart."

Resource Communications

Courtney Anderson

Courtney Anderson's research is helping advance the field of citizen science and monitor the invasive Harris mud crab.

"My research will establish a population presence/absence protocol for future citizen science volunteers," Anderson said. "The research also will compare validity of trained volunteers compared to field specialists."

Anderson's field work, which took place at Hagerman National Wildlife Refuge during fall 2019 and winter 2020, comprised setting traps for the invasive crabs. They then had volunteers collect from those traps, as well as visually assess a 100-meter transect for crabs along the shoreline.

"Although not officially complete, we have discovered training to assist future citizen science projects," Anderson said. "More data is recommended to further the research in this field since my project got cut short due to flooding and COVID-19."

Anderson currently serves as a biologist at Hagerman National Wildlife Refuge and said she hopes to continually improve communication skills in the scientific field.

"The most enjoyable aspect of my research was further developing a protocol for citizen science users around the world and having the opportunity to expand on my knowledge of higher academia," Anderson said. "I truly feel I am making a difference."

Feature

A Semester of Change

The COVID-19 pandemic required academic institutions across the U.S. to rapidly modify courses and adapt to 100-percent online, remote delivery following campus closures. SFA was not immune to this trend, and in an effort to protect the health and safety of the SFA and Nacogdoches communities, in-person classes for the spring and summer semesters were canceled beginning March 16, 2020. While some academic programs were easily modified to fit an online format, the field-intensive, hands-on classes and labs that define SFA's Arthur Temple College of Forestry and Agriculture posed more of a challenge.

"Our professors basically had two days to adapt their courses and labs to an online format to complete the semester," said Dr. Hans Williams, dean of the Arthur Temple College of Forestry and Agriculture. "Our programs in this college do not lend themselves to remote delivery very easily, so when they had to pivot to online delivery, it really required significant effort on the part of the faculty members to make that change."

Some of these innovative techniques, such as those implemented by Dr. Stephanie Jones, SFA assistant professor of animal science, also benefited students outside of SFA.

In Jones' upper-level equine reproduction course, students study all aspects of equine reproduction — from endocrinology to birth, known as foaling. To allow students to remotely monitor mares preparing for birth, known as parturition, Jones installed commonly used home security cameras in designated foaling stalls at the SFA Equine Center.

Upon learning of Jones' use of cameras to monitor parturition, representatives from Tarleton State University's College of Agricultural and Environmental Sciences reached out to her.

"They did not have the ability to provide a similar remote-viewing opportunity for their agriculture students and asked if SFA could share these live, remote videos," Jones said.

Ultimately, despite being dispersed across the state, SFA and Tarleton State University students experienced the birth of two foals that now call the SFA Equine Center home.

In order to provide students with virtual field experiences, other professors stepped in front of the camera and filmed themselves delivering lectures and demonstrating in-field techniques, such as fuel load measurements and pole classification in state and national forests.

Environmental science teaching assistants also stepped in to deliver labs, recording themselves conducting labs in a step-by-step manner so students could see the process occurring. The data obtained from this process was then provided to students to interpret and write a lab report.

Perhaps one of the most logistically challenging summer courses to adapt to an online format was Forestry Field Station, which traditionally comprises six weeks of immersive, field-based lectures and labs.

"In March we immediately started thinking about field station, because it is a really foundational course for our students," Williams said. "It sets the baseline for a lot of what we do, especially in the upper-level courses."

“Our professors basically had two days to adapt their courses and labs to an online format to complete the semester,” said Dr. Hans Williams, dean of the Arthur Temple College of Forestry and Agriculture.

Williams said that while there was an initial discussion to cancel the course, it was quickly decided that was not a feasible option for a number of reasons, including the effect it would have on student’s graduation schedules.

Thus, forestry faculty members adopted a hybrid approach in which students experienced remote delivery of material during the summer semester to be supplemented with in-person field experiences during the fall semester.

Williams said the majority of these field experiences take place on Fridays and Saturdays; and, while this may be slightly disruptive to student schedules, the benefit outweighs the cost.

Students returned to the SFA campus in August for the fall 2020 semester to find numerous safety precautions in place. Examples include limited van capacity, mandatory mask wearing, classroom layout that meets physical distancing recommendations and staggered lab sessions to accommodate large class sizes.

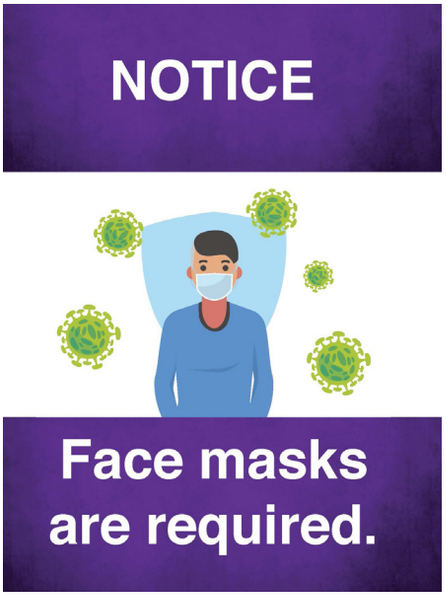
Forestry students in Dr. Jeremy Stovall’s silviculture course wear face masks during lab exercises.

Professors also altered the scheduling of course material in the event the SFA campus has to close once again.

“Some faculty members are moving key field experiences to the front of the semester so if for some reason we have to pivot to remote delivery and send students home, at least most of the key field components we want them to learn have been covered,” Williams said.

While higher education has trended toward providing more online course options during the past decade prior to the COVID-19 pandemic, Williams said he doesn’t foresee the college ever transitioning to 100-percent online delivery once the pandemic is over.

“We’re known for our hands-on teaching,” Williams said. “It’s our hands-on teaching and in-field experiences that make our students successful in their careers once they graduate.”



Numerous safety precautions were implemented for the fall 2020 semester, including limited van capacity, mandatory mask wearing and classroom layout that meets physical distancing recommendations.

Alumnus named COO of the Texas Parks and Widlife Department

SFA alumnus Clayton Wolf has been named the chief operating officer of the Texas Parks and Wildlife Department.

Wolf, who graduated from SFA with a Bachelor of Science in Forestry with a concentration in forest wildlife management, has a 27-year career with TPWD and previously served as the statewide wildlife division director.

“Any success I have achieved is because of my parents, all the great people around me and SFA’s Arthur Temple College of Forestry and Agriculture,” Wolf said.

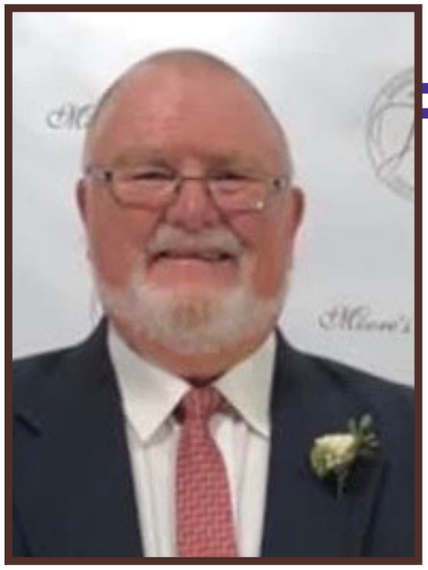
In this position, Wolf will work within the executive office of TPWD as a liaison between the Texas Parks and Wildlife Commission and TPWD staff members, and he will be responsible for the overall operation of the statewide department that manages more than 770,000 acres of wildlife management areas and 600,000 acres of state parks, natural areas and state historic sites.

“Having been with TPWD for many years, I’m confident we can utilize the many success stories within the agency as models to make TPWD even more effective and efficient in delivering our mission,” Wolf said. “Externally, our work must be relevant to all Texans, whether they enjoy wildlife as hunters, anglers, hikers, campers, or they simply enjoy watching wildlife in their backyards and local communities.”

“Any success I have achieved is because of my parents, all the great people around me and SFA’s Arthur Temple College of Forestry and Agriculture.”

The mission of the TPWD is to manage and conserve the natural and cultural resources of Texas and to provide hunting, fishing and outdoor recreation opportunities for the use and enjoyment of present and future generations. It is a recognized national leader in implementing effective natural resources conservation and outdoor recreational programs.

Wolf earned a master’s degree from Texas A&M University and, prior to beginning his career with TPWD, worked as a private sector wildlife biologist in Southeast Texas. He is a member of the Arthur Temple College of Forestry and Agriculture’s advisory council, which comprises a select group of accomplished professionals representing all disciplines within the college who dedicate their time, insight and expertise to enhancing the mission, academic rigor and success of the college.



Dr. David Hyink named Distinguished Alumnus

In recognition of nearly half a century of contributions to the field of forestry and forestry education, Dr. David Hyink received the 2020 Distinguished Alumni Award from SFA's Arthur Temple College of Forestry and Agriculture.

After more than two decades, Hyink retired in 2007 as the scientific advisor and chief forestry scientist for Weyerhaeuser Company, one of the world's largest private owners of timberlands. During his tenure, Hyink played a major role in the development and implementation of forest stand growth and yield forecasting systems for loblolly pine, Douglas-fir and Western hemlock. In addition to this primary research, Hyink also managed additional cooperative research in silviculture, wood quality, and growth and yield.

Hyink's academic contributions are extensive with more than 55 academic publications, invited papers and presentations. Additionally, he has served as affiliate assistant professor and Weaver Lecturer at Auburn University, adjunct professor at the University of Idaho, affiliate professor at the University of Washington, and assistant professor at Virginia Polytechnic Institute and State University.

"As alumni of SFA, David and his wife, Stephanie, have an exemplary record of giving back by supporting forestry and education students with scholarships and promoting student success through career mentoring," said Dr. Hans Williams, dean of SFA's Arthur Temple College of Forestry and Agriculture. "David's distinguished professional career with Weyerhaeuser, combined with his significant contributions to society, makes him an outstanding role model for our students and an ambassador representing the long-standing success of SFA's forestry program."

Hyink's service to the forest industry includes, but is not limited to, membership on the Science Advisory Board for the U.S. Environmental Protection Agency and U.S. Forest Service's Forest Response Research Program, as well as the Society of American Foresters.

Hyink's academic contributions are extensive, with more than 55 academic publications, invited papers and presentations.

"I am very honored and humbled by this award, as it not only recognizes and validates my career accomplishments but also shines a very valuable light on the impact the Arthur Temple College of Forestry and Agriculture plays in the lifetime successes of its students," Hyink said.

Hyink received a Bachelor and Master of Science in Forestry from SFA and a doctoral degree from Purdue University. He is the owner of Deerfield Consulting, which provides biometric and statistical support to clients in South Dakota.

Terry Anderson

Terry Anderson is the founder and principal in Conservation Equity Partners, as well as co-owner and principal of its sister company, Wildlife Systems Inc., a hunting and outdoor recreation-based enterprise.

Anderson said Conservation Equity Partners merges traditional natural resource management, real estate investment and ecological services while developing, operating and monetizing integrated conservation strategies. Examples of projects include rural land investment, regulatory-driven ecological offsets and legacy asset development.

Conservation Equity Partners is based in Nacogdoches, allowing Anderson to share the company's mission and projects with current forestry students.

"I am blessed to have developed and acquired a portfolio of beautiful and ecologically diverse properties, which I strive to make available to SFA students as an extension of their outdoor classrooms and learning opportunities," Anderson said. "The Conservation Equity Partners business model is based on contributing 10 to 15% of our time in a volunteer and educational capacity."

Anderson spent the first two decades of his career in the private sector, primarily focused on ecological markets and mitigation banking. His portfolio includes some of the most financially successful and highest-quality privately-funded conservation and restoration projects in the country.

"I have witnessed dramatic and often unprecedented changes to the landscape, culture and human dimension of the conservation arena," Anderson said. "Along the way, I have constantly attempted to evolve personally and professionally."

Anderson earned a Bachelor of Science in Forestry in 1991.

"As one of my good friends and conservation mentors Carl Frentress once said, 'Stewardship of natural resources is a component of citizenship and our well-being as a society is driven by how our natural resources are handled," Anderson said. "I hope my career so far, in this regard, has provided more benefit than harm."

Kasey Cox

When misfortune occurs and residents of North Central Texas reach out to first responders, alumna Kasey Cox is one of many who ensures they receive prompt assistance in their time of need.

As the North Central Texas Emergency Communications District 911 geographic information systems data administrator, Cox works on the frontline to maintain a healthy GIS infrastructure by monitoring servers as well as database health and permissions, services, applications and virtual machines. She also ensures the district's public safety applications are up to date with the state.

"My team at NCT911 is responsible for providing a map to 911 telecommunicators that can help them locate a caller, give situational awareness about the location and help them get first responders to the caller's location as soon as possible," Cox said. "Our map is active in 43 public safety answering points across 14 counties and services about 1.6 million citizens."

Cox, who holds a Bachelor of Science in environmental science and a Master of Science in geospatial science from SFA, said fate seemingly brought her to her current career. Following the end of a job with an engineering firm, Cox took a temporary job with NCT911 while pursuing additional career options. During her time there, she said she greatly enjoyed the work and learning about all the agency did for communities and public safety.

"I did not know about Next Generation 911, which involves transferring 911 infrastructure to an innovative solution," Cox said. "Before taking the temp job, I never knew the extent of GIS in public safety. The temp job only lasted about three months, but it really made an impression on me, and I made some great connections."

Following this temporary position, Cox secured the permanent position she now holds.

"I am a part of an agency that is known for being an industry leader and early adopter of geospatial technologies," Cox said. "We have been recognized for incorporating IoT, or the internet of things, and crowd-sourced data into public safety answering points."

Cox said they are now exploring the use of unmanned aerial systems for rapid data collection, as well as 3D display to more accurately locate callers in large public or residential structures.

Matt Buckingham

As the state of Texas grows at an unprecedented rate, so does its transportation infrastructure. As a biologist with the Texas Department of Transportation's Environmental Affairs Division in Lufkin, Matt Buckingham diligently works to reduce the negative impacts these projects may have on the state's flora and fauna.

"My job is to ensure that this [transportation growth] occurs in a way that is not detrimental to our state's diverse plant and animal species, and to contribute to our understanding of how plants and animals interact with our roads so that we may better plan and develop measures to protect and enhance their populations," Buckingham said.

Buckingham's primary duties include evaluating the effects of transportation projects on federally and state listed species, coordinating with state and federal agencies, and ensuring compliance with regulations, such as the Endangered Species Act and Migratory Bird Treaty Act. To accomplish this, Buckingham regularly works with the U.S. Fish and Wildlife Service, Texas Parks and Wildlife and a number of universities, including SFA.

After earning a Bachelor of Science in forest wildlife management and a Master of Science in biology from SFA, Buckingham worked for a land trust in Houston, which allowed him to conserve important habitat in Southeast Texas. Despite his love for that job, Buckingham knew he wanted to return to deep East Texas.

"My time at SFA opened the door in many ways for me," Buckingham said. "During my time at SFA, I also fell in love with the natural communities of the Pineywoods."

Buckingham also shares his passion for the natural world through photography and blogging.

"Today, photography and nature go hand and hand for me," Buckingham said. "I love sharing my passion with the world, and photography has provided an outlet to do so."

Buckingham's natural history blog can be found at mattbuckinghamphotography.com.

Abby Wines

Abby Wines has served our public lands for more than a decade through her career with the National Park Service.

While she currently is serving a four-month position as superintendent of Kenai Fjords National Park in Alaska, her primary assignment is management assistant at Death Valley National Park.

“Right now, my first focus is on keeping the employees in this park safe during COVID-19,” Wines said. “However, in a broader sense, my work supports the protection of natural and cultural resources in special places and enhances the public’s ability to enjoy and learn from those resources.

In her role at Death Valley National Park, Wines works with all park divisions on complex projects and manages public relations and external partnerships. One top priority is the repair of the park’s historic Scotty’s Castle, which was severely damaged during a flash flood.

“I’m proud of my part in the group effort to secure $54 million in funding for Scotty’s Castle rehabilitation,” Wines said. “I will be extremely proud when the historic district can reopen to the public.”

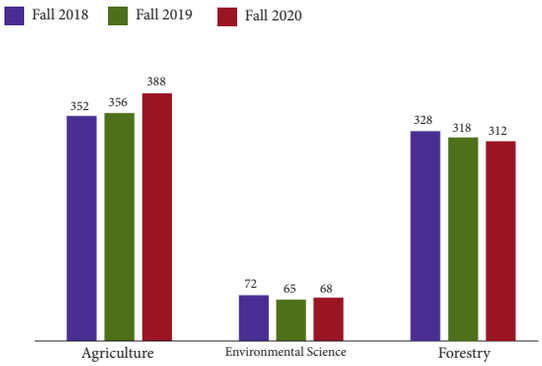
Wines also has served as chief of interpretation at the Pearl Harbor National Memorial. She holds a Bachelor of Arts in earth and planetary sciences from John Hopkins University and a Master of Science in resource communications from SFA.

“My master’s degree from SFA exposed me to the academic underpinnings of my career field as an interpreter,” Wines said. “Learning about statistical and research methods has been useful in my current job as a superintendent.”

ATCOFA at a glance

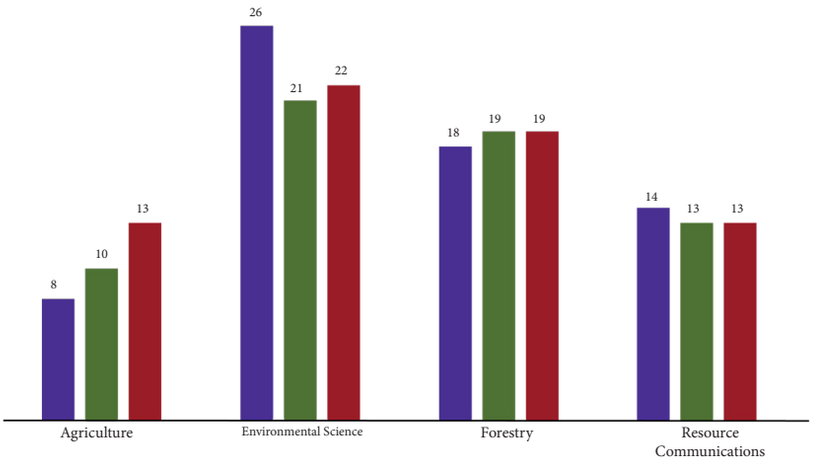
Student Life

Students pursuing a Bachelor of Science in the Arthur Temple College of Forestry and Agriculture



More than
$300,000
in scholarships awarded for the 2019 academic year

Students pursuing a master's degree in the Arthur Temple College of Forestry and Agriculture



Academics

73
unique academic publications and contributions during the 2019-20 academic year

$575,230
in grants awarded to the college during the 2020 fiscal year

ATCOFA at a glance

620,000 tons
of carbon dioxide (CO_2) sequestered in 2019 by STMicroelectronics forestland managed by the ATCOFA

Land Management

$72,000
in undergraduate scholarships generated through timber management in 2018 and 2019

3,449 acres
of forest managed in perpetuity as part of the Lumberjack Legacy program, with substantial increase of acreage expected in the coming years

Five
graduate projects in progress or completed that were partially or fully funded by timber management

Outreach

More than 2,000
National FFA and 4H Club members visited and participated in agriculture competitions and leadership development events prior to COVID-19 restrictions

ATCOFA moves nature-based story and activity time to virtual delivery for Nacogdoches ISD kindergarten classes.

>11,000
community members reached through SFA Garden's special programming for adults and children during 2019

STEPHEN F. AUSTIN
STATE UNIVERSITY

Arthur Temple College of
Forestry and Agriculture

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