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The beginning of the 2015-16 academic year has brought a few temporary leadership changes to the college. Dr. Steve Bullard, dean of the college, has been promoted to interim provost and vice president for academic affairs at SFA. In addition to his duties as chief academic officer, Dr. Bullard will lead the campuswide effort to improve university culture, an important goal of the 2015-23 university strategic plan. While I serve as interim dean of the college, Dr. Matthew McBroom will serve as the interim associate dean.

The focus of our faculty and staff members will be to continue engaging our students in transformational experiences that will prepare them for a rewarding career. Many of these activities and achievements are presented in this newsletter.

Our Division of Environmental Science has been recognized by environmentalscience.org as one of the top 50 environmental science programs in the country. Our college advisers have developed new and innovative undergraduate programs in student-led mentoring and leadership. Due to continued distinction in research and service by faculty and staff members, our undergraduate and graduate students gain valuable experience seeking answers to the regional, national and international issues facing natural resources management. I am honored to serve as the interim dean of the college, and I am humbled by the faith the administration, faculty and staff members have placed in my leadership. Please contact us at any time if we can be of service or just to update us on how you are doing.

Axe’em, Jacks!

-Hans Williams
Dr. Leon Young, professor of agriculture and laboratory director at SFA, estimates that since its opening in 1952, the SFA soil, plant and water analysis laboratory has processed more than 200,000 soil samples, not including the thousands of water, forage, litter and waste samples that pass through its doors on a yearly basis.

“Our mission is to provide soil, plant and water testing for farmers, ranchers and homeowners in the East Texas region,” Young said. “Soil testing is our major function, and based on the soil test results, we make limestone and fertilizer recommendations.”

Utilizing the expertise of Young and Wayne Weatherford, SFA laboratory associate, the lab offers more than half a century of experience in enhancing East Texas’ acidic soils. Recently, through a collaboration of funds from several SFA departments, the lab acquired a new scientific instrument, which is believed to greatly advance the lab’s mission. The new carbon and nitrogen analyzer provides rapid, valuable information regarding the elemental content of the materials analyzed, Weatherford said.

He also explained that to obtain measurements, a small amount of test material is loaded into a rotating carousel and inserted into a built-in furnace, which is heated to 900 degrees Celsius. Oxygen is then injected, and the gases released following the material’s combustion are measured and immediately translated into usable data.

SFA’s lab is actively engaged in research occurring throughout the university, conducting analyses that range from investigating the lead content of snowy plover blood to E. coli contamination in a local watershed.

SFA was named as one of the nation’s top 50 schools for environmental science by environmentalscience.org, an organization that serves as an advocate for environmental science education and careers.

According to the organization’s website, the rankings were determined through an analysis of published surveys, student, school and career data, as well as data from the U.S. Department of Education’s Integrated Postsecondary Education Data System and National Center for Education Statistics.

“I think the thing that we strive for is to make sure that our students receive the training that will lead them to a career in environmental science,” said Dr. Kenneth Farrish, director of SFA’s Division of Environmental Science. “Our philosophy is to produce graduates who are problem solvers.”

During summer 2014, Dr. Leon Young, professor of agriculture, spent three weeks in Soyo, Angola, with CNFA’s Farmer-to-Farmer (F2F) program teaching a small farmer’s cooperative affordable, accessible techniques to improve soil fertility and increase crop yields.

Sowing seeds of hope

HIGHLIGHTS

Department of Environmental Science receives national ranking

SFA soil, plant and water analysis lab acquires new instrument
SFA Gardens produces Texas’ first successful kiwifruit crop

In September 2014, SFA Gardens produced and harvested what is believed to be Texas’ first kiwifruit crop. This was the first field trial conducted outside of Auburn University to test the performance of two patented kiwi varieties that are the result of collaboration between Auburn and Hubei Academy of Agricultural Sciences’ Institute of Fruit and Tea in China.

According to Dr. David Creech, professor emeritus of agriculture and director of SFA Gardens, kiwifruit vines are relatively easy to grow, but producing fruit proves more difficult. He points out this is the first successful crop produced since the trial began at SFA three years ago. The prospects for the 2015 harvest also appear promising.

Read more at:
http://goo.gl/hy2nTK

SFA Gardens, Moody Gardens Galveston to evaluate salt-tolerant vegetation for coastal Texas

According to the Hurricane Ike Street Tree Survey Report, prepared by the Texas A&M Forest Service, the City of Galveston lost approximately 40,000 trees following Hurricane Ike in 2009. While the hurricane’s 110 mph wind no doubt led to the demise of many of these trees, the 15-foot storm surge dealt the heaviest blow, inundating the city with sea water that poisoned the island’s vegetation through soil salinization.

“The saddest thing to see were the oaks that were huge and beautiful specimens,” said Danny Carson, director of gardens at Moody Gardens Galveston. “Even with all the TLC they could get, they finally succumbed and died.”

Though Hurricane Ike has passed, numerous hurricane seasons still lie ahead for the Texas coast, in addition to climate change models predicting rising ocean levels and increasing instances of coastal flooding.

With this in mind, SFA’s Arthur Temple College of Forestry and Agriculture recently partnered with Moody Gardens to evaluate, introduce and promote a range of salt-tolerant trees, shrubs, groundcovers and herbaceous perennials for Galveston Island. Dr. David Creech, professor emeritus and director of SFA Gardens, will serve as the project leader.

“This project is a first for Galveston Island in that it establishes a long-term platform for plant materials testing,” said Creech.

He added that the three-year project is multifold and will incorporate the expertise of the college’s environmental, soil and spatial science specialists: Dr. Kenneth Farrish, Arnold Distinguished Professor of Forestry and director of the division of environmental science; Dr. Leon Young, professor and director of the SFA Soil and Plant Tissue Testing Laboratory; Dr. David Kulhavy, Lacy Hunt Professor of Forestry; Dr. Daniel Unger, professor of remote sensing and spatial science; and Dr. Yanli Zhang, assistant professor of water resources and spatial science. In addition to the collaboration among specialists in the Arthur Temple College of Forestry and Agriculture, Creech said the project necessitates partnerships across the Southern coastal U.S. to obtain the most promising selections of salt-tolerant plants.

“A primary goal of this project is to focus on trees and shrubs that have never or rarely been tested before in Texas coastal landscapes,” Creech said.

As many of the species under investigation will be non-native, a full assessment of their invasive potential will be conducted prior to their promotion or release as salt-tolerant options for the Texas coast.
ATCOFA to launch scholarly journal

This spring, Stephen F. Austin State University and the Arthur Temple College of Forestry and Agriculture will debut a new scholarly journal exploring the applications of geospatial technology in natural resource management.

“We are confident that this exciting new opportunity will allow natural resource professionals an outlet for their applied geospatial research.”

The Journal of Geospatial Applications in Natural Resources will publish double-blind, peer-reviewed articles that utilize geospatial technology to quantify, qualify, map, monitor and manage natural resources.

Dr. Daniel Unger, SFA professor of remote sensing and spatial science and the journal’s editor-in-chief, said the new publication will fill a long-needed niche for natural resource managers in the spatial science field.

“We are confident that this exciting new opportunity will allow natural resource professionals an outlet for their applied geospatial research,” said Unger.

Given the comprehensive range of natural resource management, the journal will welcome research from a diversity of natural resource disciplines such as forestry, wildlife, water, agriculture, soil-science, entomology and recreation. Furthermore, the journal will feature an assortment of applied geospatial disciplines involved in natural resource management, including satellite digital imagery, Geographic Information Systems, GPS and digital aerial photography.

The open-access journal will be published by bepress, a digital scholarly publishing service, and hosted by SFA’s Scholarworks through the Center for Digital Scholarship. Currently, bepress publishes more than 200 peer-reviewed journals from top universities around the world.

The first issue of the Journal of Geospatial Applications in Natural Resources is expected this spring.

NacogdoTREES Competition

Beginning Tuesday, Sept. 8, through Sunday, Nov. 1, Stephen F. Austin State University’s Arthur Temple College of Forestry and Agriculture and Nacogdoches Parks and Recreation will host NacogdoTREES, a free, community-wide competition celebrating the natural beauty of Nacogdoches.

“The goal of NacogdoTREES is to highlight the importance of urban and community trees, raise awareness of their ecological benefits, introduce the community to the field of forestry and encourage citizens to spend time outdoors,” said Sarah Fuller, outreach coordinator for SFA’s Arthur Temple College of Forestry and Agriculture.

The competition includes categories for largest tree circumference, largest crown, tallest tree, best shade tree, as well as best overall tree. Students enrolled in Dr. Shelby Laird’s FOR 111 will execute the technical measurements needed to determine the winners. Laird, assistant professor of forestry, hopes the competition will also provide insight into what specifically endears individuals to certain trees and provide baseline data for future research.

Visit forestry.sfasu.edu/nacogdotrees/ to download the competition entry form, as well as maps and tree measurement resources.
Students plan and execute first cattle sale in university history

The first cattle sale in SFA history was held Nov. 15, 2014, drawing approximately 200 prospective cattle buyers from throughout the region to view and bid on a variety of pure bred and commercial lots.

The Purple Premium Sale, held at SFA’s Walter C. Todd Agricultural Research Center, was planned and executed by students in Dr. Erin Brown’s advanced beef science class.

“Planning and organizing our first sale has given the 11 students enrolled in advanced beef cattle a whole new set of skills,” she said.

According to Brown, SFA associate professor of animal science, the students were instrumental in all aspects of the sale, from obtaining cattle consignments to sale marketing and setup. To provide students with the skills needed to complete such a task, Brown called on the expertise of guest lecturers, including Dr. Marlene Kahla, SFA associate professor of management, marketing and international business, and owner of an Alto, Texas, cattle operation.

While a number of the lots were consigned by cattle owners throughout the region and as far away as Oklahoma, cattle from SFA’s herd also were included. Brown said when she first joined the SFA faculty in 2005, the SFA beef cattle operation was comprised of a 40-cow commercial herd. Since then, the herd has grown to 100 head that include pure bred Beefmaster and Angus cattle.

In addition to cattle being auctioned, attendees had the opportunity to bid on semen from high-quality stock that was donated by several cattle breeders. Erin Winkel, an advanced beef science student, said these donated lots were especially beneficial, as they created direct profit that will benefit the SFA beef center.

Winkel, a senior studying animal science, said that the participating donors, cattle consigners and advertisers not only played a large role in accomplishing the event, but also in the success of the students involved.

“They helped us learn valuable skills we will need when we join the workforce,” she said. “Having the experience of actually planning and managing a cattle sale puts us ahead of the curve.”

This year’s sale will be held Saturday, Nov. 14.

Poultry Research Center goes green with new composter

Through a partnership with the Natural Resources Conservation Service and the Texas State Soil and Water Conservation Board, an Ecodrum™ in-vessel composter was installed at the SFA Poultry Research Center in January 2013. The installation marked the beginning of a trial conducted by SFA to test the effectiveness of this model of in-vessel composter that, at the time of its installation, was the only one of its kind in Texas.

Prior to utilizing the in-vessel composter, the SFA Poultry Research Center relied on incineration to dispose of poultry mortalities. This, explained Dr. Joey Bray, director of poultry science at SFA, was not only costly, but required large amounts of fuel for extended periods of time.

“We've really been able to reduce our environmental footprint by using this new method,” said Bray.

The operational costs of the composting unit also are less than those incurred through incineration. Bray added the new composting method averages approximately $100 per flock, while incineration costs an average of $800 to $900 a flock.
In March 2015, the SFA Board of Regents named Dr. Steve Bullard, dean of the Arthur Temple College of Forestry and Agriculture, the Henry M. Rockwell Chair in Forestry.

The Rockwell Chair was established by the SFA Board of Regents in 1989 following an endowment made to the university from the estate of Henry M. Rockwell, a lumberyard owner with facilities in Houston and other cities in Texas, New Mexico and Arizona.

In conjunction with his role as dean of forestry and agriculture at SFA, Bullard has served as president of the National Association of University Forest Resources Programs and recently was honored by the Society of American Foresters with the W.D. Hagenstein Communicator of the Year Award.

More recently, Bullard also was appointed interim provost and vice president for academic affairs.

"Because of Dr. Bullard's familiarity with issues of importance on our campus from both an academic and administrative perspective, I have complete confidence that he will provide excellent leadership during this interim time period," Dr. Baker Pattillo, SFA president, said.

A national search to permanently fill the position of provost will take place during the 2015-16 academic year.

Drs. Hans Williams and Matthew McBroom

Following Dr. Steve Bullard’s appointment as SFA’s interim provost and vice president of academic affairs, Dr. Hans Williams, associate dean of the Arthur Temple College of Forestry and Agriculture, was named interim dean of the ATCOFA. Dr. Matthew McBroom, associate professor of hydrology, was appointed as the interim associate dean of the ATCOFA.

“I welcome the chance to work with both Hans and Matt in these interim roles, as we continue to move forward in achieving key goals and objectives for the Arthur Temple College,” said Bullard.
Dr. Matthew McBroom, associate professor of hydrology, was recognized for his excellence in teaching during the 26th annual SFA Gala held in December 2014. McBroom, who was awarded the SFA Teaching Excellence Award in the spring, earned his doctoral degree in forest hydrology from SFA in 2005 before joining the college as a faculty member in 2006. His research interests focus on the affects of land management on water resources, as well as how to mitigate impacts on water quality through land management practices. McBroom teaches undergraduate courses related to these specialties in forestry and the Division of Environmental Science.

“To be the recipient of an award such as this is a great honor and incredibly humbling,” McBroom said in his acceptance speech.

Dr. Michael Maurer, SFA associate professor of agriculture, was awarded the SFA Teaching Excellence Award for the Arthur Temple College of Forestry and Agriculture in April 2015. The Teaching Excellence Awards were established at SFA in 1994 to honor outstanding classroom teachers.

Recipients of the annual award are chosen by each of the university’s six colleges based on knowledge of subject matter, quality of lectures and assignments, enthusiasm for teaching, interest in and availability to students, commitment to continuous improvement, and contribution to the quality of teaching within SFA by assisting and encouraging other faculty members.

Maurer teaches horticulture courses in the Department of Agriculture focusing on plant physiology, greenhouse management, floriculture, weed science, irrigation, plant protection and turfgrass science.

He earned his doctoral degree in horticulture from the University of Florida in 1994, and prior to joining the ATCOFA in 2006, he served as assistant professor of horticulture at Texas Tech University.
Stephen F. Austin State University honored five ATCOFA faculty and two staff members for their years of service to the university. Dr. Erin Brown, associate professor of animal science, Chris Comer, professor of forest wildlife, David Harrison Miller, adjunct professor of agriculture and Beverly Smith, accountant, were recognized for 10 years of service to the university. Dr. Shiyou Li, director and research professor of SFA’s National Center for Pharmaceutical Crops, was recognized for 20 years of service. Paul Weatherford, soils laboratory associate for the agriculture department, was recognized for 30 years of service, and Dr. Leon Young, 2007-08 Regents Professor of agriculture, was honored for 40 years of service.

Pictured from top, left to right are Dr. Erin Brown, Dr. Chris Comer, Beverly Smith, Dr. Shiyou Li, Paul Weatherford and Dr. Leon Young.

Dr. Brian Oswald recognized by SFA Alumni Association

Dr. Brian Oswald, Denman Professor of Fire Ecology, was named the 2015 Distinguished Professor by the SFA Alumni Association at an awards banquet held in September. The Alumni Association awards its highest honors to individuals who have made outstanding contributions to their professions, the community and who advance the goals and values of SFA.
Jamie Bouldin joined the college as an academic adviser in spring 2014. In her position, Bouldin assists new, prospective and transfer students in forestry, environmental science and spatial science with advising and course registration. In addition, she provides support for students struggling with classes, offering them tools and advice needed to keep them on the track to graduation. As a recruiter, Bouldin also regularly interacts with students and their families, providing them with information about the college, as well as a better understanding of the fields of environmental science, forestry and spatial science. “I have really enjoyed getting to know the students in this area and learning about all of these academic disciplines,” she said. “I really like learning about new things, so it has been a fun year educating myself about these different areas of study.” Bouldin received a Bachelor of Arts in journalism from SFA and a Master of Science in college student personnel from the University of Tennessee. Prior to joining the college, Bouldin worked five years as the assistant director for student engagement for leadership and service programs at SFA.

Christen Myles serves as the administrative assistant for the Forestry Building, and she is currently pursuing her Bachelor of Business Administration at SFA. In her position, Myles maintains a wide array of duties ranging from event planning to assisting in the creation of new college degree plans. “There are many other duties, so I would say I am a ‘catch-all,’ and I love it,” Myles said. Prior to joining the college, Myles was a human resource specialist in SFA’s human resources department.

Sarah Fuller was recently appointed outreach coordinator for the college. In this position, she is tasked with working with college administration to accomplish the research, teaching and outreach mission of the college. “One of the primary focuses of my position is to convey to the surrounding community the exciting and often-times groundbreaking research occurring throughout the college,” Fuller said. “I see this as a way to not only educate the community about the great things we do at the ATCOFA, but also as a way to educate them about natural resources and resource management.” Additionally, Fuller works with SFA marketing to design publications and promotional materials for the college, and she manages the college’s social media presence. Fuller earned a Bachelor of Arts in journalism and Master of Science in forestry from SFA.
Brad Henley

Spatial science student Brad Henley was chosen as the Top Scholar to represent the Arthur Temple College of Forestry and Agriculture at the 2015 SFA Undergraduate Research Conference. His research, “Agricultural Assessment: Pecan Orchard Feasibility Study,” utilized GIS to create a comprehensive assessment of an experimental orchard on a more than 2,000 acre tract of land near the Neches River. Dr. I-Kuai Hung served as his faculty sponsor.

Swedish students explore East Texas’ forest, hospitality industry through ATCOFA partnership

Through a partnership between Stephen F. Austin University’s Arthur Temple College of Forestry and Agriculture, the School of Human Sciences’ Hospitality Administration program and Älvdalen Educational Center, a forestry and hospitality post-secondary technical college in Älvdalen, Sweden, 15 Swedish students and two faculty members from the educational center completed a two-week exploration of East Texas.

Robert Nilsson and Matthew Tunn, instructors at Älvdalen’s Educational Center, said the partnership greatly benefits the participating students, many of who have never traveled abroad.

During their stay, students toured sights throughout the region that were focused on their particular area of study.

Dr. Hans Williams, interim dean of SFA’s Arthur Temple College of Forestry and Agriculture, and Dr. Chay Runnels, associate professor and hospitality administration program coordinator at SFA, organized the visit, which included trips to state parks, historic sites and the Texas Freshwater Fisheries Center, as well as logging operations.

The machines used in U.S. logging operations are very different from those used in Sweden, said Daniel Karlsson. Karlsson, who will graduate from Älvdalen’s forestry program next year, added that seeing the difference in forest operations has helped him grow as a student.

While the partnership places great focus on the vocational pursuits of the students involved, Williams said perhaps the most important aspect is the personal growth that results from experiencing a different culture.

The broadening of horizons led to the partnership between SFA and Älvdalen’s Educational Center more than three years ago. Since that time, five SFA students also have visited Älvdalen’s Educational Center for similar cross-cultural immersion.

“It’s more than just learning forestry, it’s about seeing a whole different culture,” Williams said.

The students’ visit culminated in a barbecue and tour of SFA’s Walter C. Todd Agricultural Research Center. Prior to their departure home, the SFA Horseman’s Association demonstrated a range of versatility and skill-based events before facilitating horse rides for the students.

“The welcome we had, the hospitality and the friendliness, has just been overwhelming,” said Tunn.

Student Award

Brad Henley

Spatial science student Brad Henley was chosen as the Top Scholar to represent the Arthur Temple College of Forestry and Agriculture at the 2015 SFA Undergraduate Research Conference. His research, “Agricultural Assessment: Pecan Orchard Feasibility Study,” utilized GIS to create a comprehensive assessment of an experimental orchard on a more than 2,000 acre tract of land near the Neches River. Dr. I-Kuai Hung served as his faculty sponsor.
This summer, I completed a 10-week internship collecting data for wildfire research in the Netherlands and the United Kingdom under the supervision of Dr. Brian Oswald. My colleague, Matthew Cross, a senior forestry major, and I worked alongside Dutch colleagues Nienke Brouwer and Jurgen Uffink from the Instituut Fysieke Veiligheid. The purpose of this internship was to collect data that will be used to create a wildfire spread model. Because previous interns already collected data for the sandy heathland, dune and peat areas, our job was to collect inventory for wooded areas.

Matt and I were based in the city Arnhem and stayed in a bed and breakfast directly across from the IFV. The first week, we worked out of the peat forest in Aamsveen, located on the Eastern side of the Netherlands. Next, we traveled to Texel, an island off of the coast of the Netherlands, and worked in the dune forest. While there, we rented a tent and camped on the island for a week. After we returned, we traveled to England, where we stayed for the next three weeks. From there, we worked out of the New Forest National Park, located in Southern England. When we returned to the Netherlands we worked at our final location, Loonse en Drunense duinen, which is in Southwestern region of the Netherlands.

“Overall, this trip was an amazing once-in-a-lifetime experience. I am so thankful I had the opportunity to be a part of such a highly esteemed research project.”

Within each location, we set plots to gather data. We were able to complete either one or two plots a day, depending on the weather and thickness of the understory. After we chose a plot, we rolled out five lines that were about 50-meters long and eight degrees apart. Our data was collected within the parameter of the outer two lines. In addition to collecting general site data, we measured litter and duff, took densitometer readings and took pictures of the canopy. We also measured the height and cover percentage of herbaceous species and bagged samples of each to be dried and weighed. Then, we used a three-meter circle to determine which tree, shrub and sapling species would be measured. Finally, we used the line intercept method to measure the start and end of each species on a measuring tape rolled out to 15.4 meters. It was rolled out 31 times each in random direction in the parameters of the plot and included a downed woody fuels count for the first few meters. After completing our data collection and entry, Jurgen, Matt and I each presented to staff members of the IFV. Matt delivered a presentation on fire ecology in America, Jurgen discussed our data collecting methods, and I spoke on our experience.

Overall, this trip was an amazing once-in-a-lifetime experience. I am so thankful I had the opportunity to be a part of such a highly esteemed research project. It reminded me why I fell in love with my major— I never felt as if I was going to work. I got to be outside all day in amazing weather and see parts of the world I never imagined I would. I also gained the experience of working and living with a team, where we all came from different cultures and worked to find each other’s strengths to be as efficient as possible. I think the highlight of the trip is all the real-world experiences. While traveling to different cities by myself, I learned very quickly how to become independent and more confident about my decisions. There was no one telling me which train I had to take, or to lookout for oncoming traffic or cyclists. I depended solely on myself and gained a lot from it. Also, it was amazing to see how different cultures live, and my favorite part, what they ate. Not many people my age get to experience how others live on the other side of the world, and to me, it was one of the most fascinating things. It is my dream to travel the world, so I am so thankful this internship gave me the opportunity to receive a head start.
Mikey Harrison: Monday, July 27
We hiked up Big Creek to Midnight Hole today. We learned a lot of new tree species and some salamander species. Midnight Hole was a neat place. It’s the biggest waterfall I have been to prior to this trip, so it was a neat experience. Later that evening, we traveled to Cataloochee Valley and got some very good views of elk, turkey, and a black bear and her cubs. I have never seen these wildlife species, so this was a new experience for me.

Jordan Muegge: Tuesday, July 28
This was the group’s first test. A seven-mile hike in just one day seemed like a lot. The Albright Nature Grove trail ended up being really fun and not that difficult. I actually ran around two miles of the way back just for fun. Seeing old-growth forest at the end of the hike was very cool. The amount of trees over 5-foot DBH was very cool. Seeing the 7-foot DBH dead yellow poplar was very impressive. The guys doing the brook trout survey were very cool and willing to answer questions.

Sabrina O’Neal: Wednesday, July 29
Today, we drove into the park to Clingman’s Dome, the highest point in Great Smoky Mountain National Park. Unfortunately, if was pretty foggy in the morning, so we didn’t get much of a view from the lookout tower. After checking out the top of Clingman’s Dome, we hiked one and a half miles down to Andrew’s Bald. This bald ended up being one of my favorite spots on the trip. I’ve never really seen any place like it, so it impressed me. There were a few dispersed red spruce and Fraser fir, but the majority of the bald was similar to a grassy pasture. We ate lunch on the bald and discussed some possibilities of how the balds stay the way they are. After lunch, we hiked back up to the top of the dome. We frequently stopped to check out some new birds we heard. My favorite for the day was the Blackburnian warbler. It has a pretty yellow-orange throat with black and white wings. We also saw a few dark-eyed juncos and blue-headed vireos in the same cluster of trees.

Sabrina O’Neal: Thursday, July 30
Today, we met Jason Love, who works for Georgia University and is a representative for the South Appalachian Biome. He first took us out to Tessentee Bottomland Preserve to show us a small 80-acre bottomland preservation and a stream restoration project. While there, we met up with Ben Lassider, the assistant director of the South Appalachian Biome, who works on the restoration project. It was pretty cool to have him really explain what went into the project and the reasoning for why certain things were done. Even more so, it was neat to have him talk about how important the smallest detail is when it comes to restoration and how one decision, such as using a different type of mesh netting, can have big future impacts on the site. That is when he also explained the importance of bioengineering over just re-digging out a channel shape and putting in permanent structures to keep it the same. When we finished talking with Ben, we hiked back to the vans and returned to Coweeta Hydrologic Laboratory to eat lunch and watch a video about the watershed we were about to see. The video explained just how long the different watersheds have been tested and how vast the 5,400-acre outdoor lab was. It is impressive to know that some of the same methods have been followed since 1934, and since that time, information has been recorded every five minutes. It is what makes Coweeta such a world-leading hydrologic facility. We then went to an eastern hemlock study site and discussed the research that previously occurred before the rhododendron species moved in. Now, that is the species being studied in hopes of learning its effects and possible control methods. Lastly, we explored a nearby creek for salamanders but came up empty handed, although Mikey claims to have caught and lost a black bellied salamander.
Field Station 2015
By: Charlie Jordan

Field Station started out extremely wet, and I got a van stuck for two hours as soon as we got to the experimental forest. We returned to campus soon after because the storm was so bad. During those six weeks, the inclement weather made our field exercises much more difficult than they should have been.

During our first week of field station, students used GPS devices and various surveying equipment to define boarders of a stand of trees, elevation gain or loss and the potential surface area of a new dam. I was very happy to have GIS week before other weeks, because I had not used a GPS in several semesters. It was a fantastic refresher of how to use all of the equipment.

The second week of field station was physically exhausting. In total, we hiked (scrambled would more accurately describe it) approximately 402 acres, collected around 80 plots of data and measured hundreds of trees for their diameter and merchantable height to calculate trees per acre. On Tuesday, my crew jumped a creek, and I fell in face first. I spent the next few hours sloshing through the forest in soggy boots.

During the third week of field station, we toured multiple mills to see the production of a variety of forest products, including biofuel, baskets and flooring. At the end of the week, we cut our own logs into boards using a portable band saw.

During wildlife week, we surveyed all kinds of animals from frogs and fish to birds and mammals. We learned how to use seine nets to catch aquatic vertebrates, a drift fence array to catch small mammals and amphibians, mist nets to capture birds, and used various live-capture traps for small mammals. Some notable captures were copperheads and water moccasins, as well as other snakes, indigo buntings, Seminole bats and several species of mice.

Next up was silviculture week. We visited many sites, where we watched a clearcut and a stand thinning. I found the eucalyptus plantations to be the most interesting. Because eucalyptus grows so fast, research is being conducted to see if it would be useful as a pulpwood species to be used in paper products. This week also included dendrology quizzes, which I was not prepared for. The week ended with the class visiting a waterfall and swimming in the cool water while others explored the area, threw Frisbees or searched for petrified wood.

The final week of field station was about recreation and incorporating the human element into the management of forests and wildlife. We visited several recreational camping areas and used several different methods to collect data on the environmental impacts of recreational camping. Some were pretty basic, while others were very in-depth and difficult to understand. The highlight of the trip was canoeing down the Neches River. It started out rather hot with little wind, but once we hit the river and were able to put our feet in and splash around — it felt awesome. We spent the next several hours enjoying the sun and the company of our fellow students. Our trip ended at Martin Dies Jr. State Park, where we beached our canoes, set up camp and started making dinner. Needless to say, there were no leftovers. We were all starving from a long day on the river and ate everything in sight.

Before I started Field Station, my friends who had taken it before said it’s the most fun you will never want to have again, and they were 100-percent correct. I’ve never had more fun during a summer class, and I definitely never want to go through that mental and physical exhaustion again.
The SFA National Association of Environmental Professionals hosted their second annual environmental symposium in March.

This year’s event, Invasive Species: Environmental Menace, presented a range of experts from SFA, the U.S. Fish and Wildlife Service, Texas A&M Forest Service and the University of Texas at Arlington to address the history, affects and status of invasive species locally and across the U.S.

“We use the symposiums as a way to spread awareness of important ecological topics throughout the community,” said Elena Thomas, NAEP president. “Invasive species are one of the most important issues affecting both our local and global community.” Thomas and Mallorie Nicholson, NAEP vice-president, said the symposium also focused on viable solutions to the problems posed by invasives.

Invasive species addressed during the symposium included exotic earthworms, zebra mussels, soapberry and the emerald ash borer. SFA’s Dr. Shiyou Li, National Center for Pharmaceutical Crops director and research professor, also discussed his groundbreaking research on endocide usage to effectively control giant salvinia, as well as its potential for broader applications in invasive species management.

The SFA Sylvans, SFA’s timbersports team, won its third consecutive championship title at the 58th annual Southern Forestry Conclave hosted this year by Mississippi State University.

SFA’s team of 35 students, primarily comprised of forestry majors, competed in technical and physical events against 15 other Southern forestry schools, including Virginia Tech, Clemson, Auburn and Louisiana State University.

Dr. Jeremy Stovall, assistant professor of silviculture and Sylvans’ faculty adviser, said the rigorous coursework undertaken by students in SFA’s forestry program is a key component of the team’s success.

“SFA has one of the best undergraduate forestry programs in the country,” Stovall said. “This really helps with the technical events, which are mostly focused on coursework in subjects like dendrology, wildlife, wood technology and timber estimation.”

In addition to the technical portion of the event, students compete in traditional physical timbersport events such as crosscut, log birling, archery, axe throwing and pole climbing.

Of 15 schools competing, SFA won first in both technical and physical events, with an overall score of 317.25 points. Clemson University finished in second place with 269.5 points, while the University of Georgia finished third with 268.5 points.

The Forestry Conclave is an annual competition between forestry schools of the Southeast. Next year’s competition will be hosted by Clemson University.
Amny Rose

Senior horticulture student Amny Rose completed a two-month internship at Ball Horticulture headquarters in Chicago, Illinois. Rose explained that since its establishment as a cut-flower operation in 1905, Ball Horticulture has expanded into a diverse company involved in numerous aspects of the horticulture industry.

During her internship, Rose conducted four research projects on behalf of PanAmerican Seed Company, a Ball affiliate well known in the industry as a leading breeder and producer of F1 hybrid and open-pollinated flower seed. Rose explained that each study focused on the effects of stress in the germination and growth of young plants.

“My duties were to design and carry out these experiments, collect data and report on the results,” she said. In addition to her research, she also pollinated plants, trellised tomatoes, transplanted seedlings and cleaned seeds.

She added that in addition to the hands-on experience gained in her coursework at SFA, the opportunity to plan, execute and focus explicitly on research was a wonderful way to learn. She encourages students to actively pursue similar opportunities.

“Nothing beats real-life experience,” she said. “You meet great people who are so knowledgeable about what they do, and you get to try out what you think you want to do and make sure you actually enjoy it before you jump fully into it.”

Dustin Black

Dustin Black, a junior animal science major, completed a 12-week internship with the American Brahman Breeders Association. The ABBA was founded in 1924 as the official breed registry for Brahman cattle, a beef breed known for their efficiency, hybrid vigor and environmental adaptability.

Black was responsible for assisting in the planning and execution of the junior organization’s All American National Junior Brahman Show held in Texarkana, Arkansas, as well as three other State Brahman Association shows. He said the experience has helped guide his future career plans.

“I would like to stay with the ABBA and continue to work with the AJBA youth and their F-1 program, as well as be a field representative for the Brahman breed,” he said.

In addition to his role in facilitating state and national shows, Black participated in research with the association’s Performance Tested Bull Program, contributed to executive board meetings and represented the organization at the Texas A&M Beef Cattle Short Course. Though initially hesitant to apply for the position due to competition from larger universities, Black said that Dr. Erin Brown, SFA associate professor of animal science, provided the encouragement he needed.

Brent Neal

Brent Neal, a forest wildlife management senior, completed a three-month internship at Texas Parks and Wildlife Department’s Old Sabine Bottom Wildlife Management Area in Smith County, Texas. Neal said his duties were extremely varied and ranged from assisting with songbird diversity and white-tailed deer surveys to collecting water samples and clearing the landscape for native grass restoration.

“This experience helped me by meeting professionals in the wildlife field,” he said. “It gave me an understanding of the duties that they perform in their professions. Many skills were learned in the office and in the field that will be beneficial in the future when I am looking for a job.”

Neal urges students who have not completed an internship to do so as soon as possible. Furthermore, he advises students to seek experiences outside of their specialized field.

“I have interned for TPWD and Acorn Forestry and have greatly enjoyed both experiences,” he said. “You don’t exactly know what it is that you want to do until you get some experience in the field.”
Agriculture

Julie Williams

Humans are not the only species susceptible to skin cancer. According to Julie Williams, a graduate student pursuing a Master of Science in agriculture, gray horses are particularly susceptible to the disease. “Generally, 80 percent of gray horses will have developed melanoma by 15,” Williams said. Under the direction of Dr. Stacie Appleton, Williams is investigating the possibility of mutations in the melanocortin-1 receptor of gray horses that might provide insight into the prevalence of the disease, as well as treatment options. To do so, Williams is extracting DNA from blood samples of gray horses in order to amplify the MC1R gene for sequencing. Once the genes are sequenced, Williams will compare the gray-horse DNA against that of non-gray horses to determine if any polymorphisms, or specific mutations, exist in gray horse MCR1 genes. If abnormalities are found, Williams said that knowledge could further be used to evaluate gray horses diagnosed with melanoma against those that have not developed the disease.

Forestry

Sam Sewell

Dallas native Sam Sewell is utilizing GIS and infrared camera stations at Magnolia Creek Hunting Club in Groveton, Texas, to evaluate the population of white-tailed deer and its relationship to various environmental factors. “The importance of white-tailed deer and their habitat to ecosystem stability in the East Texas region, as well as the economic and cultural significance of hunting has long been a topic of interest and discussion,” Sewell said. “This study is unique in comparison to other studies that have been done, because this study does not focus on the spread of disease in white-tailed deer as others did.” Sewell explained that his work focuses on biophysical factors, such as soil, terrain and land cover, affecting deer movement throughout the property. He said this series of spatial analyses will enhance the hunting club’s overall use and function and will provide beneficial information to other similar hunting properties. “I enjoyed applying all the knowledge and skills I learned in the department in the field and producing results that mattered,” he said.
Marife Anunciado

Marife Anunciado, an international student from the Philippines pursuing a Master of Science in environmental science, is investigating the most effective vegetation for use in shelter belts surrounding poultry farms. Anunciado said that because ammonia is one of the most generated waste by-products of livestock production, its management is a top priority. Her research, funded by the Natural Resources Conservation Service, will focus on six species: American holly, Arizona cypress, arborvitae, eastern red cedar, yaupon holly and roughleaf dogwood. Her analysis will take place in a controlled chamber located in the college’s greenhouse.

There, she will expose the six species to varying doses of ammonia while carefully documenting their physiological responses to pinpoint any possible changes elicited by the plant’s exposure to the chemical. “Determining plants’ index on air pollution tolerance will be helpful in the planning of environmental control efforts from a poultry industry’s perspective,” Anunciado said. “Instead of solely providing an appealing landscape, such known plants can become an effective shelterbelt as it captures ammonia, reducing environmental impact.”

“Determining plants’ index on air pollution tolerance will be helpful in the planning of environmental control efforts from a poultry industry’s perspective,” Anunciado said. “Instead of solely providing an appealing landscape, such known plants can become an effective shelterbelt as it captures ammonia, reducing environmental impact.”

Jodi Hill

In collaboration with the Natural Resources Conservation Service and East Texas Plant Materials Center, doctoral candidate Jodi Hill is evaluating the quality and yield of seven native and introduced warm-season forages grown under a shade structure to mimic the coverage of a loblolly pine over story to assess the potential of silvopasture use in East Texas. Silvopasture, Hill explained, is a form of agriculture that combines the production of trees with an understory component of forage and livestock. As Hill enters the final year of data collection, she says the preliminary results are encouraging.

“We’re showing improved forage quality underneath the partial shade, and in response to that, we’re seeing an improvement of the beef cattle or grazing animal component,” Hill said. She adds that although further research investigating the economic return of the method’s use in the region is needed, economic studies conducted elsewhere have been positive. Hill said she believes silvopasture is an underutilized method and holds the potential to increase the productivity of the region’s soils while providing food for the expanding population.
SOWING SEEDS OF HOPE WITH SUBSISTENCE FARMERS IN SOYO, ANGOLA

As Dr. Leon Young, SFA professor of agriculture, spoke about his time in Africa, his eyes lit up. Scrolling through the hundreds of photos taken during his three-week Cultivating New Frontiers in Agriculture volunteer assignment in Soyo, Angola, he called each person by name, sharing anecdotes about their time together through CNFA’s Farmer-to-Farmer program.

He also meticulously examined the photos taken during his layover in Angola’s capital city of Luanda, a city booming in oil reserves and new high-rise buildings. The construction cranes peppering the skyline stand in stark contrast to the traditional street markets and subsistence farmers that scrape out a living on the edges of the city.

“You get off the main thoroughfares in Luanda and it’s just like any third-world country,” Young explained. “There are people out there living on a shoestring.”

To confront this drastic inequality, CNFA implemented its F2F program in Southern Africa with the goal of generating sustained economic growth in the agriculture sector through short-term technical assistance provided by expert volunteers and local staff. The program engages participant needs at every level, from soil fertility to production and marketing.

Young was tasked with teaching a local farmer’s cooperative in Soyo techniques to improve soil quality through sustainable practices and accessible, affordable resources.
As he searched Google Earth for the exact location of the farmers’ small commercial plots, he explained that the farmers are attempting to grow leafy vegetables during the dry season to sell to the region’s emerging middle class. Easier said than done, however, when key agricultural inputs like fertilizer are inaccessible and in most cases unaffordable.

“For a soil fertility guy, that’s really, really frustrating,” Young said.

But Young didn’t have time to remain frustrated. His days were packed with soil sampling and re-evaluating lesson plans to help meet the farmers’ needs.

“They’re already doing what they need to do,” he said with a laugh. “I think all I did was spend two weeks giving them positive reinforcement.”

Young’s agricultural work in Africa began in 2000 during a church mission trip to Tanzania. While participating in a prayer walk, Young said he overwhelmed a local missionary with questions regarding surrounding crops and agricultural practices.

“I said my agronomy mind is running at 100 mph trying to figure out what is going on here,” Young recollected.

Since then, he has taken part in six additional volunteer trips. After teaching the technique of conservation tillage to his first class of Tanzanian farmers, Young purchased a small amount of hybrid corn and nitrogen fertilizer for participants. Those who continue to implement the conservation tillage practices have doubled their corn yields from 25 to 50 bushels per acre.

He joined forces with CNFA in 2013, training workers to run a soil testing lab at the Catholic University of Mozambique. Though he hoped to return to the lab this summer, CNFA representatives explained that his expertise was needed most in Angola.

As the fall semester begins, he is already proposing future trips.

“Well,” he said, pausing to look away from the photos of his students and their crops, “you just feel like you’re doing some good, and it’s a lot of fun.”
Randy Royle

Since graduating with a Bachelor and Master of Science in agriculture from SFA, Randy Royle has led a successful science career that spans 28 years with Servi-Tech Inc., specializing in state-of-the-art laboratory testing across North America and the world. Currently, Royle serves as the chief laboratory officer in Servi-Tech Inc’s Dodge City, Kansas, laboratory, and, in addition to the Dodge City lab, is responsible for the operations of two other agricultural laboratories located in Amarillo, Texas and Hastings, Nebraska.

Royle said that after 28 years on the job, he is primarily focused on business management-related tasks rather than actual laboratory work, but still has the great pleasure of interpreting analytical data generated in the lab for customers.

“Whether it’s making a fertilizer recommendation from soil test data, discussing nutritional value of animal feedstuffs or advising a farmer on the suitability of his irrigation water, I am using analytical chemistry and agriculture science to answer food production questions,” he said. “Efficiency in agriculture today requires trustworthy data and that’s what we provide.”

Though Royle grew up in a family of agricultural producers, finding his niche in college took time and guidance.

“With help from the guidance counselors and much prayer, I felt led to pursue something I loved, agriculture,” he said. “I can honestly say the course of study from that point on was interesting and natural. I was in my element.”

During his graduate studies, Royle worked as a research assistant in SFA’s soil, plant and water analysis laboratory, laying the foundation for his future career with Servi-Tech Inc. which in 2014, analyzed an excess of 400,000 samples.

Virginia Burkett

Dr. Virginia Burkett, who graduated in 1997 with a doctoral degree in forestry, was recently appointed as the associate director for climate and land use change for the U.S. Geological Survey.

According to the agency’s announcement, Burkett previously served as the USGS chief scientist for the climate and land use change mission area and co-chaired the strategic science planning team responsible for developing the mission area’s 10-year science strategy. Burkett formerly served as chief of the Wetlands Research Center located in Lafayette, Louisiana, and as associate regional chief biologist for the USGS Central Region. In addition to serving as the deputy secretary, director and secretary of the Louisiana Department of Wildlife and Fisheries, Burkett also directed the Louisiana Coastal Zone Management Program and served as assistant director of the Louisiana Geological Survey.

Burkett was a lead author of the United Nation’s Intergovernmental Panel on Climate Change’s third, fourth and fifth assessment reports published in 2001, 2007 and 2014, respectively, as well as the IPCC Technical Paper on Water in 2008, and all three U.S. National Assessments of Climate Change Impacts produced by the U.S. Global Change Research Program. She is a senior editor of the journal, Regional Environmental Change, and serves on the editorial board of the journal Ethics in Science and Environmental Politics. During the span of her career, she has been appointed to more than 60 commissions, committees, science panels and boards. In addition to her scientific contributions, Burkett also serves on the advisory board of the Arthur Temple College of Forestry and Agriculture.

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Meredith Howe

Meredith Howe graduated with a Bachelor and Master of Science in agriculture from SFA, and she recently received her Doctor of Veterinary Medicine from Texas A&M University. She is currently veterinarian in Frisco, Texas.

Beginning in high school, Howe worked at various veterinary clinics and equestrian facilities. While a graduate student at SFA, Howe also worked at the Walter C. Todd Agricultural Research Center’s beef, swine, goat and sheep farms. Through this position, Howe said she was able to broaden her expertise in agriculture and learn more about the ways in which agriculture impacts the local and global community.

Howe’s graduate research at SFA investigated the effects of weaning strategies on beef cattle in their health and performance. Her research was presented at a variety of professional meetings. During one memorable occurrence, Howe met and discussed her work with famed professor and animal scientist Temple Grandin.

“I was inspired by the animals that I grew up loving and the people within the communities that I wanted to be a part of,” she said. “I grew up knowing that agriculture was a very important part of the world, and I wanted to be involved with it always.”

Cliff Todd

Cliff Todd’s love of rural Texas, agriculture and Stephen F. Austin State University runs deep. In fact, SFA has been a part of Todd’s family for five generations.

Following his graduation in 1974 with a Bachelor of Science in agriculture, Todd served the state for 30 years before retiring as the Texas Department of Agriculture’s rural economic development specialist for the Eastern Region of Texas.

“When I was little in the mid 1950s, we grew corn for feeding our cattle and raised cotton,” he said. “It was something I loved and enjoyed. My love of agriculture also translates into my appreciation for rural communities.”

This understanding and appreciation of rural living guided his time with the Texas Department of Agriculture. He regularly assisted rural communities as they sought to retain and expand area industries, often times working with SFA’s Department of Agriculture and the Texas A&M AgriLife Extension Service to host economic-related workshops.

Though Todd has retired, he has by no means stopped working. In 2007, Gov. Rick Perry appointed Todd as the director of the Sabine River Authority. Todd said that during his tenure, he often looked for ways to partner with researchers at the Arthur Temple College of Forestry and Agriculture as they worked to control invasive species. Todd also served as the executive director of the Marshall Economic Development Corporation, and he is now employed by C&J Energy Services. Additionally, Todd is a licensed minister with the Central Baptist Church and has taught Sunday school for almost 30 years. He and his wife, Denise, live and work on a Panola County ranch that has remained in their family for almost a century.
Anthony Stambaugh, a 2014 graduate of the environmental science program, currently works as the Rio Grande watermaster specialist for the Texas Commission on Environmental Quality. In this position, Stambaugh focuses on river operations. This includes receiving water requests from diverters such as farmers, industries and municipalities, and requesting water releases from applicable dams in accordance with the Texas Administrative Code and Texas Water Code.

Stambaugh, who also minored in biology while at SFA, began as an intern with TCEQ before moving into a full-time position with the agency. Through his regulatory role with the agency, he also directly interacts with stakeholders who come to him with questions regarding Texas water laws.

Josh Butler
Josh Butler, a 2011 graduate of the environmental science program, is an environmental specialist and manager for Westward Environmental’s Dallas office. Butler’s duties range from project coordination and research to on-site compliance testing and compliance audits. He works directly with clients to discuss permitting options and answer questions they may have related to regulatory compliance.

“I believe that by obtaining the necessary permit authorizations associated with a client’s project and training our clients on the steps necessary to remain in compliance, we are able to preserve the industries that our quality of life depends on while respecting the environment in which we live,” Butler said.

Butler says he also uses many of the skills and information covered in his GIS, hydrology, soils and environmental measurements classes at the ATCOFA.

Cody Pruitt
Cody Pruitt graduated with a Bachelor of Science in forestry in 2013, and he currently works as a forestry technician for the City of Austin Urban Forestry Unit. Pruitt said he knew he wanted to pursue an outdoor-based career after he earned the rank of Eagle Scout as a youth.

“I knew that furthering my education in a university that is known for its outdoor education would help me choose a good direction for a career path,” he said. Pruitt is currently pursuing an ISA Arborist Certification for the state of Texas.

If you graduated from our college, we want to hear from you! Email Jamie Bouldin at jfbouldin@sfasu.edu to provide us with an update.
If you have images you would like to share, email Sarah Fuller at fullersa@sfasu.edu.
Arthur Temple College of Forestry and Agriculture
419 E. College St.
P.O. Box 6109, SFA Station
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