Edition #08

NEWSLETTER

Summer 2025

NATURAL RESOURCES & ENVIRONMENTAL SCIENCES

Welcome!

IN THE NEWS

Find out what is happening around the department

EVENTS

Forestry Fair, GIS Workshop, and SOAR

SUMMER INTERNSHIPS

Forestry and Environmental Science Student Internships

ALABAMA A&M UNIVERSITY

IN THE NEWS

NESTING SEASON SOARS WITH HIGH SUCCESS RATE

By Ashley Woods

My team and I are thrilled to report an overall fledgling success rate of ~87.2% this season, with 157 fledglings from 180 eggs laid. This is a fantastic outcome for our feathered residents!

Species Highlights:

- Eastern Bluebird (EABL)
  - Our Eastern Bluebirds had a standout season with 66 nest attempts, resulting in an impressive 154 fledglings.
- Tree Swallow (TRES)
  - It's been a tough month for the Tree Swallows. Out of 3 nest attempts, only 1 fledgling was successfully raised. Some nests were abandoned abruptly, and one pair laid a malformed clutch with fragile, thin-shelled eggs. We will continue monitoring for any signs of improvement.
- Bald Eagle (BAEL)
  - The majestic Bald Eagle pair had 1 nest attempt, and it was a success! One strong fledgling has officially left the nest. Under the nest tree, we discovered a curious collection of catfish skeletons, turtle shells, and other remains, evidence of their healthy diet. A drone flyover is planned soon to get a look inside the now-empty nest.
- European Starling (EUST)
  - 1 nest was observed, resulting in 1 healthy fledgling.
- Carolina Wren (CARW)
  - The first Carolina Wren nest of the season was discovered on July 3rd with 4 eggs.

Despite a few heat spikes, nest box temperatures stayed below dangerous levels, which is great news for our heat-sensitive species. Measurements will begin soon as we prep for UV-screening installation to reduce summer heat impact.

Nest boxes got an upgrade with new metal number plates to help with monitoring and record-keeping.

With the season entering its final stretch, we're optimistic about continued success and potential late-season nesting. Continued monitoring, along with proactive heat mitigation, will be key. We remain hopeful for more surprises, both expected and unexpected, as the season evolves.

Photos by Ashley Woods

EVENTS

FORESTRY FAIR AT AAMU: CONNECTING YOUTH TO THE ENVIRONMENT

By Rachel Stone

The Alabama A&M University (AAMU) campus came alive this summer with the energy of curious young minds exploring the world of forestry during the annual Forestry Fair, a cornerstone outreach event designed to inspire K–12 students from across Alabama. For more than a decade, this event has served as a gateway for school-aged children to discover the diverse facets of forestry and the vital importance of forest land stewardship.

This year, the Forestry Fair proudly welcomed approximately 50 participants from Birmingham Water Works' Young Water Ambassadors Program, a month-long summer enrichment initiative for high school juniors and seniors focused on environmental education. These students, touring the region to deepen their understanding of ecological issues, joined AAMU's Forestry Research Apprenticeship Program participants for a day of immersive learning.

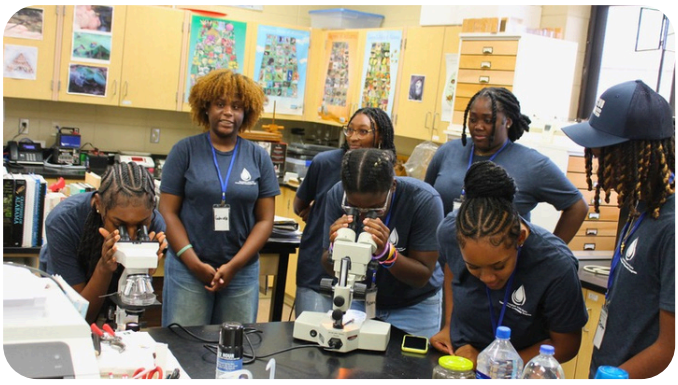
Sponsored by the USDA Forest Service, the event thrives on collaborative engagement with a diverse array of academic and industry partners, who lead mini-workshops on a variety of forestry-related subjects. This year, students rotated through six educational stations, each providing hands-on activities that explored the vital elements of forest ecosystems:

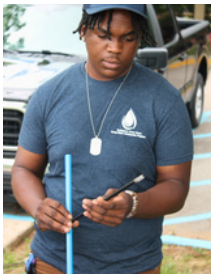
- Orienteering & Tree Measurement – Led by Dr. Shaik Hossain and Wilford Briggs, this station introduced students to compass navigation and the tools used to measure trees, helping them understand how foresters map and assess forest health.
- Fire Management & Safety – Jeremy Whigham hosted this popular stop alongside the FireDawgs fire truck, guiding students through the history of wildland firefighting and the modern use of prescribed fire to manage forests safely.
- Stream Flow & Erosion – At this station, Christopher Burns, a proud NRES alumnus and representing ACES, demonstrated how water movement shapes landscapes and impacts forest ecosystems.

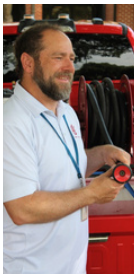
- Wildlife Conservation – Dr. William Stone presented an engaging wildlife session with taxidermied animals, helping students identify native species and understand their roles in forest habitats.
- Tree Identification – Loretta Lynne Weninegar taught students how to recognize trees by their leaves, fostering appreciation for the diversity of native flora.
- Water Quality & Microorganisms – Dr. Elica Moss and Gianna Porter introduced the microscopic world within our water systems, teaching how clean water connects to forest health and public well-being.

Through each interactive workshop, students were not only entertained, they were educated. The event offered a unique opportunity for urban youth to engage directly with natural resource professionals, promoting environmental awareness and career exploration in forestry and related sciences.

With its combination of experiential learning, enthusiastic mentorship, and community partnership, the Forestry Fair continues to grow its impact, one young mind at a time.



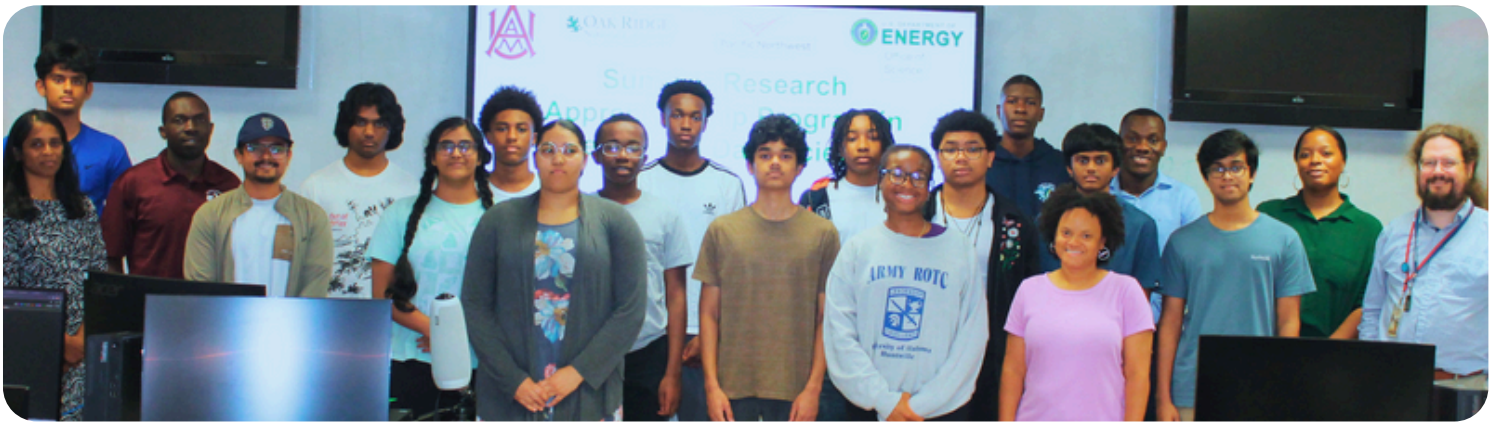




Photos by Rachel Stone

SUMMER GEOSPATIAL DATA SCIENCE WORKSHOP

By Dr. Ranjani Kulawardhana and Rachel Stone



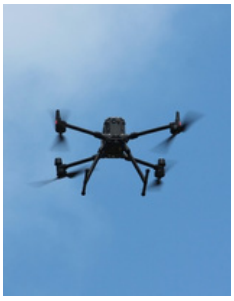
This summer, Alabama A&M University hosted its second annual Summer Research Apprenticeship Program in Geospatial Data Science, welcoming 13 enthusiastic high school students from across North Alabama. Building on the success of last year's inaugural cohort of eight students, this year's workshop continued its mission to ignite early interest in STEM by providing hands-on, experiential learning opportunities.

The primary goal of the workshop is to motivate and encourage students to pursue STEM fields by introducing them to real-world research, training, mentoring, and internship opportunities. Through collaboration with AAMU faculty and national research laboratories, students gain early exposure to academic and professional STEM environments, laying a strong foundation for their future careers.

Students showed exceptional enthusiasm and engagement throughout the program. While classroom sessions introduced the fundamentals of geospatial data science, it was the fieldwork that truly captured their interest. Participants eagerly collected GIS data using GPS technology and had the unique opportunity to fly drones, activities that brought the concepts to life and sparked deeper curiosity.

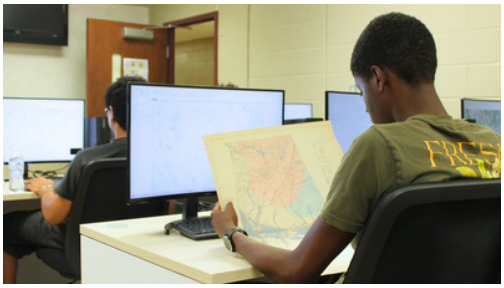
In the classroom, students explored the basics of GIS (Geographic Information Systems) and worked with sample datasets using GIS software. Guided by instructors, they developed their own maps and analyzed GIS data they had personally collected. This blend of theoretical learning and practical application helped them build valuable technical skills in geospatial science.

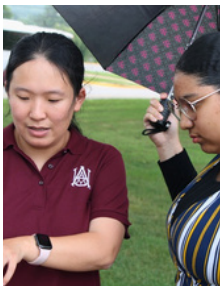
With growing interest and participation, the program is set to continue in Summer 2026, with plans to launch an advanced course for returning students from Cohorts I (2024) and II (2025). The goal is to further deepen their understanding and expand their skillset in geospatial data science.

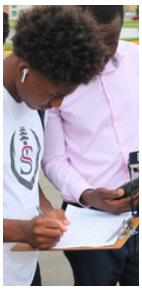


This year's diverse group of students hailed from Sparkman High School, New Century Technology High School, Bob Jones High School, James Clemens High School, Artemis Virtual Academy, Buckhorn High School, and Hazel Green High School. While a few were in 9th grade, the majority were rising 10th and 11th-graders, making this an ideal stage to inspire future scientists and innovators.

Thank you to the AAMU staff and graduate students who supported this year's workshop: Promise Johnson, Rachel Stone, Evan Hunt, Rong Xiao, Kindrea Gibbons, Justin Vaughner, Jean Rugandirababisha, Marvin Lotash, Bikash Ghimire, and Yashoda Sarathchandra. Your hard work, dedication, and expertise helped make the program a success. We appreciate everything you do. This work was made possible through financial support from the Department of Energy's RENEW Grant, "*Applied Geospatial Data Science Initiative for Urban Climate Change Studies*," awarded to Dr. Ranjani Kulawardhana.







Photos by Rachel Stone

ADVANCING STEM EDUCATION: THURGOOD MARSHALL COLLEGE FUND

By Rachel Stone

On July 8-9, Alabama A&M University and J.F. Drake State Community and Technical College partnered to host a STEM-focused event for Thurgood Marshall College Fund (TMCF) students. SOAR (Seeking, Observing, and Achieving Results) is a free, week-long residential experience hosted by TMCF at select HBCUs across the country. Designed for high-achieving high school juniors (rising seniors), the program offers students a firsthand look at life at an HBCU. NRES faculty and staff set up an informational table in the Engineering Building to meet with these students. Dr. Wubishet Tadesse, Evan Hunt, Kindrea Gibbons, and Rong Xiao were on hand to introduce students to the NRES program and answer questions about careers in environmental science, conservation, and sustainability.

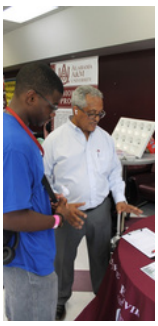
A highlight of the display was the department's showcase of two drones, an eye-catching demonstration that naturally led into conversations about cutting-edge technologies like Geographic Information Systems (GIS) and their applications in natural resources management. These interactions provided students with a glimpse into the hands-on experiences they can expect in the NRES program.











Photos by Rachel Stone

NRES CONNECTS WITH FUTURE BULLDOGS

By Rachel Stone

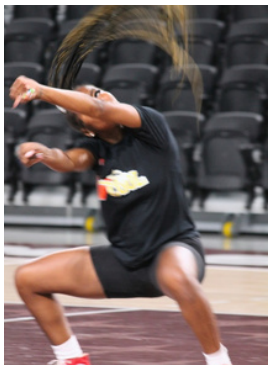
On Saturday, July 12, NRES participated in Student Orientation and Registration to officially welcome Alabama A&M's incoming freshman class. The day was filled with energy and excitement, featuring spirited dancing, a lively basketball competition, and a T-shirt toss. University leadership delivered informational speeches covering academic expectations, housing policies, student support services, campus regulations, and guidelines for appropriate conduct within the university community.

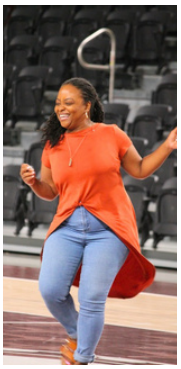
After the formal program, students explored the campus, met with representatives from housing and financial aid, and had the opportunity to speak directly with academic departments. The NRES team was stationed at the top of the bleachers, proudly representing the department with faculty, staff, and student ambassadors ready to engage.

Dr. Kozma Naka, Dr. Dedrick Davis, Dr. William Stone, and Evan Hunt were joined by senior NRES student Sakora Smeby, who shared her firsthand experience in the program. The team was delighted by a surprise visit from alumnus Chris Burns, now representing the Alabama Cooperative Extension System (ACES), who added valuable insight into post-graduate opportunities in the field.

The NRES Department is excited about the potential new students who showed interest in environmental science and natural resource management. We're committed to nurturing their curiosity and guiding them through a path filled with discovery, innovation, and real-world impact.

Welcome to Bulldog Country, we can't wait to see what you'll accomplish!





Photos by Rachel Stone

SUMMER INTERNSHIPS

FORESTRY SUMMER INTERNSHIPS

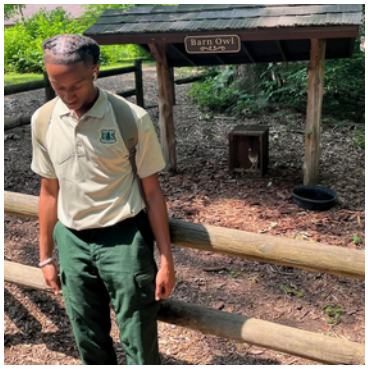
By Elijah McCray and Rachel Stone

This summer, our talented Forestry students are putting their knowledge into action through exciting internship opportunities across the country. From managing forest health to supporting conservation initiatives, they are gaining real-world experience while making a meaningful difference in protecting our natural resources. The Department of Natural Resources and Environmental Sciences is incredibly proud of these students as they represent both our department and Alabama A&M University with excellence. Their hard work not only reflects their dedication but also highlights our shared commitment to environmental stewardship and sustainable land management.

Josh Curry (freshman) is interning as a National Park Supervisor in Chadron, Nebraska at the Nebraska National Forest and Grasslands.

David Green (junior) is interning as a forest technician in Tucson, Arizona at Santa Catalina Mountains.

Christian Bolden (junior) is interning as a district ranger for the Forest Service Special Uses in San Bernardino, CA.



Jahi Bradford (junior) is interning as a forestry technician for the Lakes USFS Recreational Park in Golden Park, KY.

Shawn Freeman (sophomore) is interning as a Soil Conservationist in Cleveland, MS through the 1890 scholars program.

Joseph Lumpkin (sophomore) is interning as a Forest Technician in Hasley, NE for the Nebraska National Forest.

Jason Bledsoe (senior) is interning as a Special Uses Student Trainee in Rio Grande, Puerto Rico for the El Yunque National Forest.

Timari Borum (junior) is a LBL intern for the Land Between the Lakes in Golden Pond, KY.

Michael Bates (junior) is working for the Special Uses in Wall, South Dakota for the Forest Service.

Elijah McCray (junior) is interning as a Soil Conservationist in Canton, Mississippi for the USDA-NRCS.

David Wilkinson (sophomore) is a Special Uses Intern for the Tuskegee National Forest.

Javeen Thompson (senior) is a Special Intern for the Coronado National Forest in Tucson, AZ.

Ramel Woodard (junior) is interning as a soil conservationist student trainee for the USDA-NRCS in Dover, DE.

ENVIRONMENTAL SCIENCE CLUB SUMMER INTERNSHIPS

By Rachel Stone

This summer, members of the Alabama A&M University Environmental Science Club are making their mark well beyond campus. Through prestigious internships across the country, these driven students are gaining hands-on experience in the field while proudly representing AAMU. Their work is contributing to real-world solutions and showcasing the excellence and dedication that define our university community.

Keyshawn Johnson (senior) is interning with Land O'Lakes with his project focusing on warehouse management and product sustainability.

Julian Mark (junior), a Communications Media Major, is interning with the @goforyours dream foundation in Los Angeles, CA.

WANT TO KNOW MORE?

>>> NEST BOX UPDATE

>>> FORESTRY FAIR

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