Edition #06

NEWSLETTER

April 2025

NATURAL RESOURCES & ENVIRONMENTAL SCIENCES

Welcome!

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ALABAMA A&M UNIVERSITY

NEWS

APRIL NEST BOX UPDATE: A MONTH OF NEW LIFE AND DISCOVERY AT WTARS

By Ashley Woods

April has been a vibrant and transformative month at the Winfred Thomas Agricultural Research Station (WTARS), where the skies and fields are alive with the sounds and sights of new beginnings. Ashley Woods, the center's lead on avian monitoring, shared an exciting update on the progress of the ongoing nest box project — and the numbers tell a story of success and promise.

So far this season, 129 eggs have been laid, with 94 young hatched, and an impressive 46 Eastern Bluebirds (Sialia sialis) have already fledged. That's 46 new insect-eating allies out in the wild — each playing a part in boosting the region's biodiversity and naturally regulating pest populations. "It's only been a month, and already we're seeing incredible results," Ashley reports. "Every fledgling is a small victory for local conservation."

However, nature's balance also includes its challenges. A few non-viable clutches and the loss of 10 chicks were noted early in the season. Based on detailed nest checks and field observations, these losses appear to stem from natural causes such as underdeveloped chicks or the sudden absence of a parent, not from predators or heat-related stress. Monitoring will continue throughout the season to better understand these patterns and improve overall nesting success.

The resident Bald Eagle (*Haliaeetus leucocephalus*) chick has rapidly transitioned from downy eaglet to confident juvenile. With each day, it grows stronger and more independent — a majestic reminder of the impact of long-term habitat stewardship. Ashley notes that witnessing this transformation has been one of the most rewarding parts of the season so far.

For the first time, one of the nest boxes is now home to an occupied Tree Swallow (*Tachycineta bicolor*) nest. While checking on the site, Ashley witnessed a rarely observed moment in the wild — a cloacal kiss, the brief but essential contact through which swallows mate. “It was a truly special thing to witness. Tree Swallows are new to our boxes, and we’re thrilled to see them taking up residence,” she said.

Nature hasn’t stopped at the bluebirds and swallows. Across the property, other avian residents are hard at work continuing their cycles of life:

- A Killdeer (*Charadrius vociferus*) nest near the welcome building is nearing hatching. With vigilant parents nearby, fluffy chicks are expected within the next couple of weeks.
- On the far end of the site, a Loggerhead Shrike *(Lanius ludovicianus*) nest has been discovered with two chicks. Alongside it? A freshly skewered grasshopper on barbed wire — a signature hunting and storage tactic of this fierce little songbird.

It’s been a month full of life, learning, and awe. With more nesting still to come, the WTARS team is eagerly looking ahead to May.

Thank you for being part of our growing flock at WTARS!

Photos by Ashley Woods

SOIL TO SOUL SCREENING

By Christopher Holden

The Green Gift is a nonprofit organization dedicated to empowering the next generation of scientists, innovators, and changemakers through research advocacy and STEM education. Founded by Christopher Holden, Dylan Maurel, and Evan Tenorio on October 1, 2024, its mission is to support graduate students in completing their research, connect community values with scientific discovery, and inspire youth to explore careers in STEM.

The Green Gift plans to award five $1,000 research scholarships annually, while also engaging with the community through events, educational seminars, and collaborations with local organizations like the Huntsville Environmental Coalition and AAMU's Environmental Science Club. By bridging research and real-world impact, The Green Gift aims to create a more inclusive, sustainable, and knowledge-driven future.

On April 17th, The Green Gift held a screening of their film Soil to Soul. The Soil to Soul screening was a meaningful experience for The Green Gift. It opened up important conversations around food justice, sustainability, and community resilience. Partnering with the Huntsville Environmental Coalition and the AAMU Environmental Science Club helped The Green Gift reach a passionate and informed audience. The event aligned perfectly with their mission to advocate for research and environmental stewardship. It left the nonprofit organization feeling energized and more committed than ever to supporting education and equity through science.

Photos from Christopher Holden

Celebrating Administrative Professionals Week: Honoring the Heart of Our Departments!

By Promise Johnson

April 21–25, 2025 marked Administrative Professionals Week—a time to highlight and celebrate the extraordinary behind the scenes contributions of administrative professionals around the world, and especially those in our own Department of Natural Resources and Environmental Sciences.

While their work often happens behind the scenes, administrative professionals are the backbone of an organization. They are not only essential to the day-to-day functioning of the department, but also contribute significantly to creating a welcoming, efficient, and organized environment for students, faculty, and visitors.

Why Are Administrative Professionals So Vital to an Organization?

This answer, I will try to simplify:

- They Are the Face of the Department.

Administrative professionals are often the first point of contact for anyone engaging with our department—be it students, parents, other campus department personnel, or other external requestors. Their professionalism, helpfulness, and knowledge set the tone for all departmental interactions and shape the public perception of our programs.

- They Are the Organizational Core.

From managing complex schedules and maintaining accurate records to organizing department events and handling critical communications, administrative professionals are the coordinators who keep everything in sync. Their attention to detail ensures nothing falls through the cracks or behind schedule.

- They Are Problem Solvers and Crisis Managers.

Think of them as behind-the-scenes “firefighters.” Whether it’s resolving last-minute scheduling conflicts, navigating administrative hurdles, or troubleshooting technology issues, administrative professionals are quick to act and ready with solutions—More often than not, before problems even come to your attention.

- They Empower Others to Succeed.

By handling essential administrative tasks, they free up faculty and leadership to focus on teaching, research, and their core tasks. Their work directly supports the academic mission by enabling a smoother operation and relieving the administrative burden on others.

CELEBRATING ADMINISTRATIVE PROFESSIONALS WEEK: HONORING THE HEART OF OUR DEPARTMENTS!

By Promise Johnson

Take a Moment to Say Thank You!

Although Administrative Professionals Week has passed, it's never too late to show appreciation. A handwritten note, a kind word, or even a sweet treat (yes, chocolate is always welcome!) can go a long way in acknowledging the vital work these professionals do each and every day.
Let's continue to recognize and celebrate the administrative professionals who are truly the heart of our departments—because without them, nothing would really quite run the same.

Beverly Joiner

Rachel Stone

Penny Parnell-Stone

Sharon Steele

Promise Johnson

Phyllis Campbell

EVENTS

AAMU SHOWCASES STUDENT INNOVATION AT STEM DAY 2025

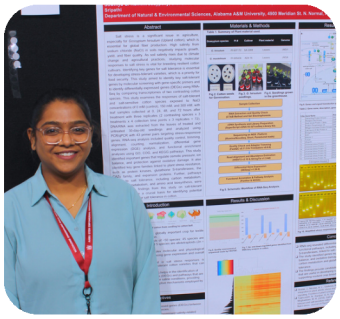
By Rachel Stone

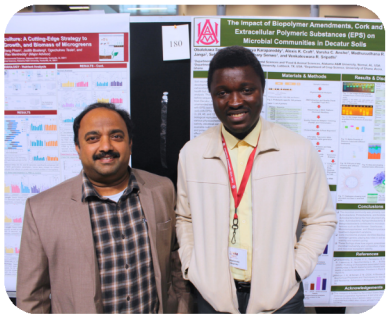
The Alabama A&M University Event Center buzzed with excitement on Thursday, April 10th, as students, faculty, and guests gathered for the annual STEM Day — a celebration of science, technology, engineering, and mathematics across campus. Among the standout participants were students from the Department of Natural Resources and Environmental Sciences (NRES), who delivered an impressive lineup of research presentations that highlighted both the depth and diversity of environmental science today.

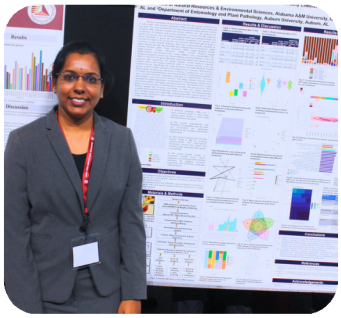
NRES students presented their research across a wide array of topics, reflecting the cutting-edge work taking place within the department. Projects ranged from exploring biopolymer soil amendments to assessing E. coli contamination in local water systems. One student investigated the potential of plasma technology in environmental applications. Another student studied insect abundance as indicators of ecosystem health, while another examined the growth patterns of loblolly pines under varying environmental conditions.

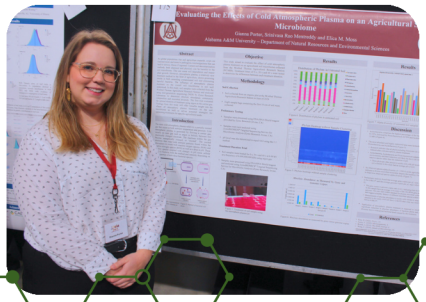
Innovative approaches to environmental monitoring were also on display, including the use of aerial hyperspectral imaging to map land cover changes and evaluate tree health. Students also tackled critical issues in water quality, soil science, and climate adaptation strategies, bringing new ideas and fresh perspectives to ongoing environmental challenges.

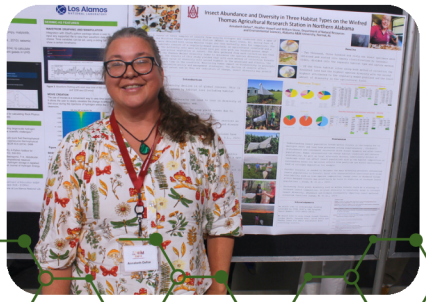
The level of professionalism and scientific rigor demonstrated by the NRES students was a source of pride for the department.

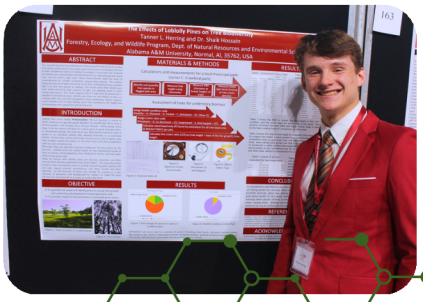








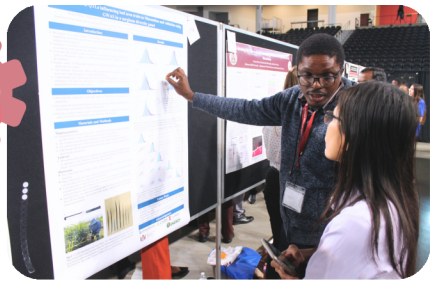


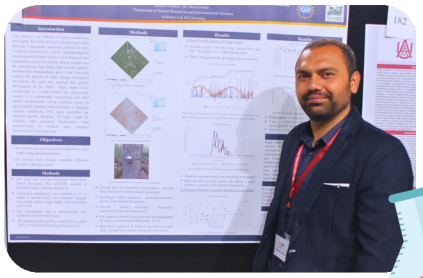
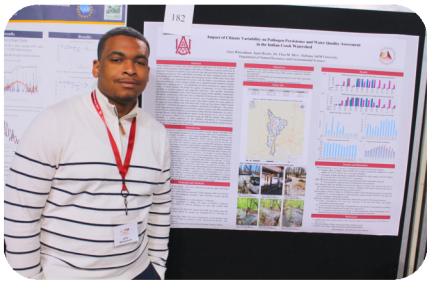
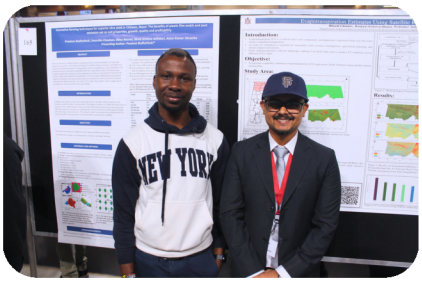
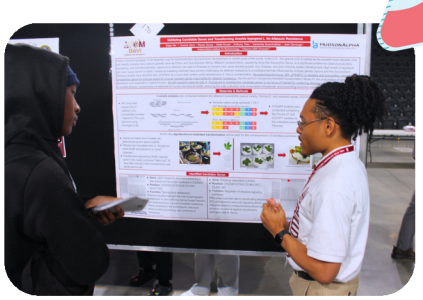


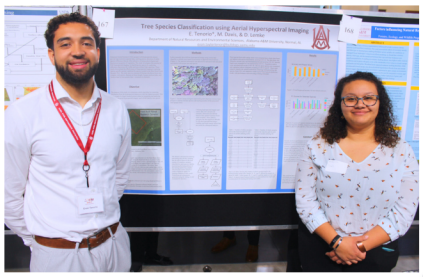
Several NRES students were proudly recognized during STEM Day for their posters and research. Among the undergraduate winners were Annabeth Defoe, mentored by Dr. William Stone, for her poster titled Insect Abundance and Diversity in Three Habitat Types on the Winfred Thomas Agricultural Station in Northern Alabama; Jalen Whisenhunt, mentored by Dr. Elica Moss, for his work on Impact of Climate Variability on Pathogen Persistence and Water Quality in the Indian Creek Watershed; and Tanner Herring, mentored by Dr. Shaik Hossain, who presented The Effects of Loblolly Pines on Tree Biodiversity. Additionally, two graduate students mentored by Dr. Kuang at the Winfred Thomas Agricultural Research Station (WTARS) were honored: Elijah Nix for his poster Validating Candidate R Genes and Transforming Arachis hypogaea L. for Aflatoxin Resistance, and Joshua Stanley for his project Genetic and Phenotypic Understanding of Stem Quality and Leaf Abscission in Miscanthus.

STEM Day continues to be a highlight of the academic year at Alabama A&M University, offering students a platform to share their work, engage with peers and faculty, and inspire future research collaborations. For the NRES department, it was a moment to celebrate not only student success, but the vibrant spirit of inquiry that drives environmental science forward.

As the event concluded, the enthusiasm was palpable — a reflection of a new generation of scientists, innovators, and environmental stewards ready to make their mark.






WELCOMING FUTURE BULLDOGS AT AAMU OPEN HOUSE

By Rachel Stone




On Saturday, April 12th, Alabama A&M University hosted its Spring Open House at the Event Center, welcoming a vibrant crowd of prospective students and their families to explore the campus and discover all that AAMU has to offer. The event was filled with energy, excitement, and Bulldog pride.

Representatives from each college and department set up engaging booths where visitors could learn more about academic programs, student life, and opportunities for involvement. The Department of Natural Resources and Environmental Sciences (NRES) had the pleasure of connecting with many curious and motivated students throughout the day. Faculty, staff, and current students were on hand to share insights about our unique programs, research opportunities, and the important work being done in the environmental and natural sciences. Several attendees expressed strong interest in pursuing studies within NRES, and we were thrilled to answer their questions and hear their passion for the environment and sustainability.

The day was not only informative but also lively and entertaining. Attendees enjoyed spirited performances from the Maroon and White Band, the Baby Bulldogs, and the Bulldog Beat. President Dr. Daniel K. Wims set the tone for the event, emphasizing the university's commitment to academic excellence, community, and innovation.

We are grateful to everyone who stopped by our table and made the day so memorable. We look forward to welcoming some of these bright future Bulldogs into the NRES family!




AG DAY SPRING 2025: A CELEBRATION OF CALNS PRIDE

By Rachel Stone

The spring sunshine and upbeat music set the perfect tone as the College of Agriculture, Life and Natural Sciences (CALNS) came together to celebrate AG Day 2025 on the Quad. With all six departments—Natural Resources & Environmental Sciences (NRES), Family & Consumer Sciences, Food & Animal Sciences (FAS), Community & Regional Planning, Military Sciences, and Biological Sciences—showing up in full force, the event was a vibrant display of what makes CALNS such a dynamic and collaborative college.

From start to finish, the energy was high. Students danced to the sounds of a live DJ while enjoying hot dogs grilled by the Food and Animal Sciences department. Each department hosted a table filled with information, giveaways, and interactive displays that gave visitors a closer look at the wide range of opportunities within CALNS.

Representing NRES, we were proud to showcase the exciting tools and topics at the heart of our program. Alongside the Forestry Club and Environmental Science Club, we featured a unique photo booth crafted entirely from recycled materials, which drew plenty of smiles and sparked great conversations about sustainability. Our table also included an impressive display of taxidermy animals—skillfully preserved by past students—as well as LiDAR technology and a drone used in field research. It was a chance to show how our work connects the natural world with cutting-edge science and technology.

Leadership from across the college also attended the event. Dr. John Jones, Provost and Vice President for Academic Affairs; Dr. Lloyd Walker, Dean of CALNS; Dr. Jennifer Wells, Associate Director of ACES; Dr. Martha Verghese, Chair of Food and Animal Science; and several others took time to visit tables, engage with students, and enjoy the vibrant atmosphere. Their involvement highlighted the strong support and close-knit community that characterizes CALNS.

AG Day was more than just a fun afternoon—it was a chance for all of us to connect, share, and celebrate the incredible work happening across our college. We're grateful to be part of a community that values both tradition and innovation, and we're already looking forward to next year.

CLUB ACTIVITIES

CELEBRATING EARTH DAY

By Rachel Stone

Every April, the world pauses—if only for a moment—to recognize something we often take for granted: our planet. Earth Day, observed globally on April 22, is more than just a date on the calendar. It's a vital reminder that this blue and green world we call home needs us just as much as we need it. With rising sea levels, increased plastic pollution, and vanishing biodiversity, it's never been more important to act—not just on Earth Day, but every day.

This year, the Environmental Science Club took that message to heart, transforming Earth Day into an entire week of impact, education, and community connection. From cleaning up our local environment to promoting sustainable solutions and partnering with other passionate groups, they've been busy—and inspired. Here's a look at what their Earth Week looked like:

ESC EARTH MONTH CLEANUP WITH AKA

By Alexis-Marie Parrish

The Gorgeous Gamma Mu Chapter of Alpha Kappa Alpha Sorority, Incorporated, and members of the Environmental Science Club participated in the Earth Month cleanup at the Richard Showers Center in collaboration with the Huntsville City Green Team. Cristin Williams, Dr. Elica Moss, and Alexis-Marie Parrish assisted in cleaning up trash in the Huntsville community surrounding the Richard Showers Center.

ESC EASTER EGG HUNT

By Alexis-Marie Parrish

The Environmental Science Club partnered with the University Echo Ambassadors to host a fun and engaging Easter egg hunt on the Quad. Students searched for eggs filled with educational, environmental, and university facts. This event encouraged community building while also kicking off Earth Week.




ESC NATURE QUEST

By Alexis-Marie Parrish

The Environmental Science Club organized a scenic hike at Monte Sano State Park to promote outdoor exploration and environmental appreciation. Participants enjoyed the parks, beautiful views, trails, and the importance of preserving natural spaces. It was a refreshing and inspiring experience for everyone involved.

ESC TRIVIA NIGHT

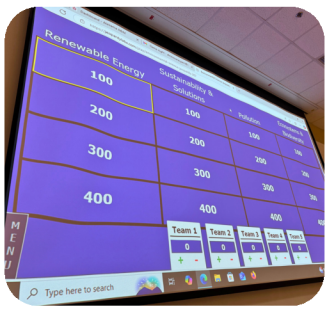
By Alexis-Marie Parrish and Julia Mapp Williams

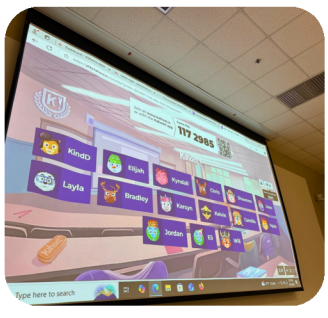
The Environmental Science Club hosted a lively trivia game night, bringing students together for a fun evening of friendly competition and learning. Teams answered questions on environmental science, sustainability, and green initiatives while enjoying snacks and prizes. The event was a combination of education and entertainment, helping participants test their knowledge and raise awareness about important environmental topics.

“The air was charged with competitive spirit on Monday at the Environmental Science Club's Earth Week celebration of Trivia Night. The room was packed with students eager to win top prizes, like the perfect gift card to get you through finals week.

In the first round of Jeopardy, teams went head-to-head in a battle of wits. Then, during the next game, the competition ended with a lively Kahoot match, as students competed for the top three spots on the leaderboard,” Julia Mapp Williams, member of the ESC stated.

Overall, it was a great night of laughter, teamwork, and club bonding.





ESC ANIMAL SHELTER

By Alexis-Marie Parrish

The Environmental Science Club partnered with the Animal Bio-Health Science Club for a community service project at the local animal shelter. Members of the Environmental Science Club volunteered to walk dogs around the local rescue center. The event fostered teamwork, compassion, and community engagement and showed the important connection between environmental stewardship and animal well-being.




ESC SUSTAINABLE PITCH COMPETITION

By Alexis-Marie Parrish

The Environmental Science Club hosted a sustainable pitch competition, challenging students to present innovative ideas for promoting sustainability on campus and beyond. Participants showcased creative, sustainable solutions while addressing plastics in the ocean and vertical farming. A panel of judges evaluated each pitch on impact, feasibility, creativity, and overall presentation. The event highlighted the power of student innovation, environmental change, and inspiring new initiatives for a greener future.

Earth Day is a celebration, but more importantly, it's a call to action. ESC's Earth Week activities demonstrated that when we work together, learn together, and care together, we can create a ripple effect that leads to real, lasting change.

All Earth Week Photos from Alexis-Marie Parrish

RESEARCH

27 YEARS IN THE SHADOWS: DR. STONE SHARES A CAREER OF BAT RESEARCH

By Rachel Stone






On April 15th, Dr. William Stone, a dedicated wildlife biologist with funding from the USDA and National Science Foundation, delivered a captivating seminar recounting his 27-year journey studying bats across Alabama. The event offered a deep dive into decades of field research, discovery, and conservation challenges, centered around one of the most misunderstood yet ecologically vital mammals: bats.

Dr. Stone began by recounting early surveys in the Bankhead National Forest, where he and his team discovered populations of the Indiana bat and the gray bat, two federally protected species. He credited crucial assistance from the Huntsville Grotto of the National Speleological Society and described the innovative use of a makeshift harp trap to capture bats safely for study. Using tiny radio tags, his team was able to track the bats' nocturnal movements and identify their preferred roosting trees, including white oak, shagbark hickory, and loblolly pine.

His work expanded into Home Range Analysis and Forest Management Impact, using data overlaid on the Continuous Inventory of Stand Condition (CISC) Database. Dr. Stone revealed how factors such as forest edge, mature hardwoods, and the presence of older trees significantly influenced bat habitat use. He also discussed how certain forest management practices—like canopy thinning and the removal of woody debris—can have unintended consequences on bat populations.

Throughout his career, student researchers played a vital role. Dr. Stone emphasized their involvement in data collection, analysis, and fieldwork, helping to power long-term research efforts and bringing fresh energy to conservation science.

The seminar then turned to a topic that has deeply affected North American bat populations: White-Nose Syndrome (WNS). Dr. Stone shared sobering insights on the disease's spread into Alabama and its devastating impact, especially on species like the northern long-eared bat. He detailed the use of mist nets and acoustic bat detectors to study bat activity. He described ongoing cave surveys, including in places like Russell Cave, to monitor WNS progression and its effects on hibernating bat colonies.

Adding a global perspective, Dr. Stone recounted a research expedition to China, where he studied bat diversity and diet. With mist nets and acoustic monitoring, his team identified species feeding on beetles, moths, and forest pests like the southern pine beetle. Guano analysis revealed the critical role bats play in controlling insect populations—a vital service to forests and agriculture alike.

The seminar concluded with stories from recent field efforts, including the Bat Blitz event and the exciting discovery of the elusive small-footed bat in Alabama. Dr. Stone again emphasized the invaluable contributions of students, who participated in field surveys and helped document bat presence across varying forest management treatments.

Ultimately, Dr. Stone's message was clear: Continued research, active monitoring, and student involvement are essential to protecting bat populations and understanding the full impact of threats like white-nose syndrome. After nearly three decades of work, his passion remains as strong as ever—for bats, for the forests they inhabit, and for the future of biodiversity in Alabama and beyond.




Photos by Rachel Stone and from Dr. William Stone

WANT TO KNOW MORE?

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