

# NATURAL RESOURCES & ENVIRONMENTAL SCIENCES



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In Memoriam to Dr. Ernst Cebert

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# NEWS

## HONORING THE LIFE AND LEGACY OF DR. ERNST CEBERT

By Rachel Stone



The NRES Department dedicates this newsletter in memory of Dr. Ernst “Ernie” Cebert, a beloved educator, researcher, and mentor whose impact on Alabama A&M University and the broader agricultural community will be felt for generations.

Dr. Cebert, who passed away on March 21, 2026, at the age of 71, devoted nearly three decades of service to Alabama A&M as a Research Associate Professor and as manager of the Winfred Thomas Agricultural Research Station (WTARS), a 970-acre living laboratory supporting agricultural and environmental research.

Throughout his career, Dr. Cebert was a driving force in advancing sustainable agriculture, bioenergy, and crop innovation. His work spanned a wide range of projects, from developing a winter canola breeding program for the Mid-South to advancing research on biodiesel and renewable feedstocks. Dr. Cebert also contributed to major initiatives such as the Department of Energy’s Center for Bioenergy and Bioproducts Innovation (CABBI). He also helped establish Alabama A&M’s hemp pilot program and contributed to applied research in crops such as corn, soybean, and cotton—always with a focus on real-world impact for farmers and communities.

Beyond his research, Dr. Cebert was deeply committed to mentorship and outreach. He supported student training programs, collaborated with farmers and industry partners, and even helped launch innovative community efforts such as a mobile health clinic to address local healthcare gaps.

Colleagues and students alike remember him not only for his scientific contributions but for his humility, kindness, and unwavering dedication to helping others succeed.

Born in Port-au-Prince, Haiti, Dr. Cebert's journey to agriculture was shaped by his service in the U.S. Air Force and a deep desire to address global food insecurity. He went on to earn his bachelor's and master's degrees from Alabama A&M and a Ph.D. in agronomy from Purdue University, before returning to AAMU to build a career rooted in purpose, innovation, and service.

Dr. Cebert married Dr. Rhona Miller-Cebert on July 7, 1999. Outside of his professional life, he was a devoted family man, remembered for his warmth, generosity, and presence in the lives of those he loved. He is survived by his wife, Dr. Rhona Miller-Cebert; his children, LaJameka, Kristeen (Jerrel), Marie, Michael, and Mark; his grandchildren, Aubrey, Kameron, and Precious; his great-grandchild, Lake; his siblings, Yolande, Yanique, Marie, Lesly, Emanuela, and Morine; his beloved in-laws, Sonia, Everal (Sheryl), Angela, Jennifer (Maurice), Andrea, Jacqueline, Howard (Lorraine), and Sidonie; and a wide circle of extended family, colleagues, students, and friends.

At his memorial service, his twin sons honored him through a violin performance—a reflection of the deep love and strong family bonds he cultivated throughout his life.

Dr. Cebert's legacy lives on through the students he mentored, the programs he built, and the lasting contributions he made to agricultural science and sustainability. His work continues to shape the future of research at Alabama A&M and beyond.



# EVENTS

## STRENGTHENING PARTNERSHIPS: USFS, NPO, AND AAMU COLLABORATION MEETING

By Stephanie Love and Dr. William Stone



On April 1, 2026, Alabama Agricultural and Mechanical University hosted a strategic partnership meeting with representatives from the United States Department of Agriculture (USDA), United States Forest Service (USFS), and the National Partnership Office (NPO) at the Agricultural Research Center in Normal, Alabama. The meeting brought together faculty, staff, students, and federal partners to reinforce and expand a longstanding collaboration focused on forestry, workforce development, and natural resource management.

The visit included leadership from the USFS National Partnership Office, as well as university leadership, including AAMU President Dr. Daniel K. Wims and Vice President Dr. Majed Dweik, underscoring the importance of the partnership at the institutional level.

The primary objective of the meeting was to build upon more than 30 years of collaboration between AAMU and the USFS, with a focus on developing a future workforce prepared for wildfire readiness and response, special uses and permitting, as well as active forest management. Through open dialogue and in-person engagement, participants worked to align goals, strengthen relationships, and identify opportunities for future joint initiatives.

Discussions highlighted the evolution of the partnership, with presentations from faculty including Dr. William Stone and Dr. Kozma Naka, who shared insights into past successes and the current state of collaborative efforts. Looking ahead, USFS representatives introduced upcoming initiatives, including the Forests250/America250 campaign, and engaged participants in identifying future project opportunities and partnership needs.



A key component of the visit was direct engagement with students, particularly members of the AAMU Fire Dawgs Wildland Fire Program, USDA 1890-Scholars, and workforce development program participants. During a networking break, students had the opportunity to connect with USFS and AAMU leadership, gaining exposure to career pathways and the broader impact of federal partnerships. These students are expected to play a vital role as future contributors to the ongoing collaboration.



The meeting also included a campus and facilities tour led by Fire Chief Jeremy Whigham, showcasing key resources such as the Agribition Center, the Agricultural Research Center, and new infrastructure supporting wildfire response training. Notably, the USFS has contributed equipment to support these efforts, including a water pump truck and a new van, further strengthening the university's capacity for hands-on training and emergency preparedness. The infrastructure involves an on-campus garage for vehicles and equipment.



Throughout the day, participants emphasized shared priorities, including wildfire readiness and response, special uses and permitting, active forest management, and the importance of partnerships that achieve sustainable results on the ground. Conversations also addressed challenges and opportunities for improving project implementation and expanding the reach of collaborative programs.



The meeting concluded with the development of key takeaways and action items, reinforcing a shared commitment to continued collaboration. As AAMU prepares to participate in the upcoming Forestry 250 celebration, also known as the Forestry Fair, on June 17, this partnership remains a cornerstone of the university's efforts to advance forestry education, research, and community impact.

## ATTENDING THE 22<sup>ND</sup> ARD RESEARCH SYMPOSIUM

By Keshav Ghimire



I recently had the opportunity to attend the ARD Research Symposium 2026 in New Orleans, and it was an incredibly valuable academic and professional experience. This four-day biennial symposium brought together more than 1,500 participants representing 19 historically Black 1890 Land-Grant Institutions from across the United States. The conference centered on innovations in food, health, and agriculture, with a strong emphasis on both technological advancement and ecological sustainability in modern research.

During the symposium, I presented my poster titled *“Intra-annual growth dynamics of sugar maple (*Acer saccharum*) in relation to climatic influence in Paint Rock, Alabama.”* My research focuses on understanding how sugar maple growth changes throughout the year by using dendrometer measurements alongside seasonal climate data. By examining these intra-annual growth patterns, I aim to better understand how forest systems respond to environmental variability and changing climate conditions.

I presented this work as part of the graduate student competitive poster session in the bioenergy, natural resources, and environmental science category. I am honored to have received a first-place Certificate of Achievement for Outstanding Poster Presentation in this category. This recognition highlights the importance of research that advances our understanding of how forest growth dynamics are influenced by climate.

Beyond presenting my research, the symposium provided meaningful opportunities to network with fellow students, faculty, and professionals, engage in insightful discussions, and explore interdisciplinary research approaches.

I would also like to extend my sincere gratitude to my advisor, Dr. Dawn Lemke, for her continued guidance and support throughout this research process. Her mentorship has been instrumental in making this achievement possible.

## MY EXPERIENCE AT THE ARD 22ND BIENNIAL RESEARCH SYMPOSIUM

By Sravan Kumar Sanathanam



I am grateful for the opportunity to attend the ARD 22nd Biennial Research Symposium in New Orleans, where researchers, students, and collaborators from 1890 land-grant institutions came together alongside partners from government and industry. The symposium provided a dynamic space to connect, exchange ideas, and engage with a wide range of research.

One of the most impactful aspects of the experience was the sheer scale and diversity of work being presented. With hundreds of poster and oral presentations, I had the

opportunity to engage with individuals working on challenges closely related to my own research, leading to insightful discussions and new perspectives.

During the symposium, I presented my research titled *"Multiomics Approaches to Explore Reniform Nematode Resistance in Cotton."* My work integrates transcriptomic, metabolomic, and microbiome data to better understand how resistance develops over time in cotton. By combining these approaches, the goal is to uncover complex biological interactions that can contribute to more resilient agricultural systems.

I am honored to share that this research was recognized with Third Place in the Graduate Student Poster Competition in the Agricultural Systems & Technology category. This achievement reflects not only my efforts but also the strong support system behind me.

I would like to express my sincere gratitude to my advisor, Dr. Venkateswara Sripathi, for his continued guidance and mentorship throughout this work. I am also thankful to the Department of NRES, Dr. Douglas D. LaVergne, and Alabama Agricultural and Mechanical University for providing the resources and environment that made this experience possible.

Overall, attending the ARD Symposium was a rewarding experience that allowed me to share my research, learn from others, and continue growing as a researcher.

## ADVANCING COTTON RESILIENCE: MY RESEARCH EXPERIENCE AT THE ARD SYMPOSIUM

By Sowmya Goud Kommireddypally



Attending the ARD 22nd Biennial Research Symposium in New Orleans was both inspiring and rewarding. The experience provided an opportunity to engage with fellow scientists, students, and professionals, sparking meaningful conversations and new perspectives on current research challenges.

At the symposium, I presented my poster titled *“Differential Gene Expression in Salt-Tolerant Cotton Species in Response to Salt Stress.”* My research focuses on understanding how salt-tolerant cotton species respond

at the molecular level to salt stress, with the goal of identifying key genes that contribute to resilience. This work is especially important as increasing soil salinity and changing environmental conditions continue to impact agricultural productivity. By identifying these genetic mechanisms, we can contribute to the development of crops that are better equipped to withstand environmental stress.

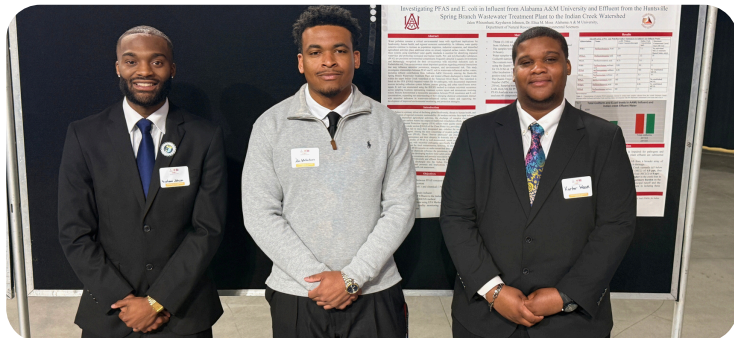
I am honored that this work was recognized with Third Place in the Graduate Student Poster Competition in the Plant Health and Production and Plant Products category. This achievement reflects not only my efforts but also the strong mentorship and support that guided me throughout this process.

I would like to express my sincere gratitude to my advisor, Dr. Venkateswara Sripathi, for his continued guidance and encouragement. I am also thankful to the Department of NRES, Dr. Douglas D. LaVergne, and Alabama Agricultural and Mechanical University for fostering an environment that supports curiosity, growth, and impactful research.

This experience allowed me to share my work, learn from others, and continue developing as a researcher in the field of plant science.

## AAMU STEM DAY 2026 HIGHLIGHTS STUDENT RESEARCH EXCELLENCE

By Dr. Elica Moss

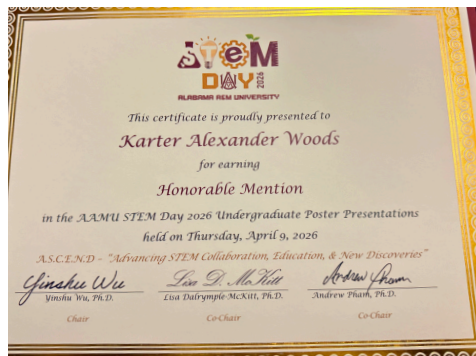


On April 9, 2026, Alabama A&M University hosted its annual STEM Day celebration, bringing together hundreds of undergraduate and graduate students, faculty mentors, researchers, and community partners to showcase innovative research and scholarly achievement across science, technology, engineering, and mathematics disciplines. The event showcased the University's academic talent and research capacity and gave students a chance to present their work, connect with peers and professionals, and sharpen their scientific communication skills.

The Department of Natural Resources and Environmental Sciences (NRES) was proudly represented through several impactful student research presentations focused on environmental health, water quality, environmental justice, and community revitalization. Students mentored by Dr. Elica M. Moss demonstrated exceptional scholarship and professionalism throughout the event, earning top recognition for their research contributions.

In the undergraduate research category, Keyshawn Johnson and Jalen Whisenhunt earned First Place for their project entitled, *"Evaluation of Poly- and Perfluoroalkyl Substances in Influent and Effluent Water at the Huntsville Spring Branch Wastewater Treatment Plant."* Their research examined the presence of PFAS compounds—commonly referred to as “forever chemicals”—in wastewater influent and effluent associated with the Huntsville Spring Branch Wastewater Treatment Plant. The project addressed growing national concerns regarding the environmental persistence and potential human health impacts of PFAS contamination in aquatic systems.

Through their investigation, the students explored how wastewater treatment processes may influence PFAS occurrence in water systems connected to the Tennessee River Basin. Their work reflects the increasing importance of environmental monitoring, water quality assessment, and emerging contaminant research in protecting public and environmental health. The project also demonstrated the students' ability to apply interdisciplinary approaches involving environmental toxicology, environmental chemistry, and environmental health science to address complex environmental challenges affecting communities locally and nationally.



Additional recognition was awarded to Karter Woods, a Community and Regional Planning student with a minor in Environmental Health, who received Honorable Mention for the presentation titled, *"Blight to Opportunity: Mapping Brownfields and Socio-Economic Disparities in Alabama Communities."* The project was developed through the AAMU–ADEM Brownfields Workforce Development Partnership and focused on identifying and evaluating brownfield sites alongside socio-economic indicators across Alabama communities.

The research highlighted the intersection of environmental conditions, redevelopment opportunities, and environmental justice concerns within underserved and historically impacted areas. By integrating mapping technologies, demographic analysis, and community-based planning perspectives, the project emphasized how strategic brownfield redevelopment can support economic revitalization, improve environmental quality, and enhance community well-being. The presentation also demonstrated the importance of interdisciplinary collaboration in addressing real-world environmental and planning challenges.

The success of these students reflects Alabama A&M University's continued commitment to undergraduate research, experiential learning, and community-engaged scholarship. STEM Day provided an important platform for students to develop confidence as emerging scientists and professionals while showcasing the high-impact research opportunities available within the Department of Natural Resources and Environmental Sciences.



Dr. Elica M. Moss, faculty mentor for all three award recipients, expressed pride in the students' accomplishments and their dedication to addressing critical environmental and public health issues through research. Their achievements represent the growing strength of student-led inquiry within the department and reinforce the University's mission to prepare students for leadership roles in environmental science, environmental health, sustainability, and community development.

The Department of Natural Resources and Environmental Sciences congratulates Keyshawn Johnson, Jalen Whisenhunt, and Karter Woods on their outstanding accomplishments and looks forward to their continued success in research and professional development.

# CLUB ACTIVITIES

## CRANES TAKE CENTER STAGE AT WHEELER NATIONAL WILDLIFE REFUGE

By Dr. William Stone

Members of The Wildlife Society from Alabama A&M University, including graduate students and a recent Ph.D. alumnus, visited Wheeler National Wildlife Refuge with advisor Dr. William Stone to observe wintering wildlife and learn about habitat use in a real-world setting. The afternoon visit offered a unique opportunity to witness the behavior of migratory birds and other wildlife in their natural environment.

Among the most striking observations were large flocks of sandhill cranes moving through the wetlands and fields. These birds were actively foraging, demonstrating the energy-conserving behaviors that allow them to survive long migratory journeys. The refuge's carefully managed habitats, including shallow wetlands and cooperative farming areas that provide grains like corn and millet, support these migratory populations each winter.

The highlight of the visit was the sighting of two whooping cranes, one of North America's most endangered bird species. These tall, white cranes with black-tipped wings and red crowns stand out even among sandhill cranes. Whooping cranes migrate long distances between their breeding grounds in Canada and wintering habitats in the southeastern United States. Once reduced to just 15 individuals in the 1940s, conservation programs including captive breeding, reintroduction, and habitat protection have helped their numbers gradually increase. Despite these efforts, they remain critically endangered, and every winter sighting underscores the importance of protected wetlands like Wheeler Refuge.



Other wildlife was also noted during the visit, including ducks and a white-tailed deer, providing context for understanding how different species share and compete for habitat resources. The field observations allowed participants to discuss topics such as species interactions, migration strategies, and the role of habitat management in supporting both common and rare species.

Wheeler National Wildlife Refuge is part of an entirely new migratory flyway on the east side of the Mississippi River. This highlights the creative and experimental nature of the recovery efforts for this species that include our neighborhood NWR. The refuge serves as an important living laboratory for understanding avian ecology, conservation biology, and wetland management. The presence of whooping cranes in particular demonstrates how coordinated conservation efforts can make a measurable impact, while highlighting the ongoing need for habitat preservation to ensure the survival of endangered species.



# RESEARCH

## APPLIED AVIAN FIELD METHODS AND PROFESSIONAL TRAINING AT CHAPMAN MOUNTAIN NATURE PRESERVE

By Kira Williams and Dr. Yong Wang

Graduate researchers in Dr. Yong Wang's avian research group within the Department of Natural Resources and Environmental Sciences (NRES) recently conducted a hands-on avian field training at Chapman Mountain Nature Preserve, integrating research, professional development, and public outreach. This biologically diverse site supports both migratory and resident bird species, making it an ideal setting for applied ornithological research.

The field team—graduate students Kira Williams and Thomas “Tat” Thompson—worked alongside state biologist Olivia Wilkes in a structured training and outreach environment. The program emphasized hands-on experience in standardized avian field techniques while strengthening skills essential for ongoing and future research projects.

Using mist nets, a standard, low-impact method in ornithological research, the team safely captured birds for training and data collection. Participants received guided instruction in extraction techniques, a critical skill that minimizes stress and risk to birds during handling. Following extraction, the team conducted morphological assessments—including measurements such as wing and tarsus length, important indicators of body size—along with evaluations of energetic condition and interspecific variation.

Beyond basic morphometrics, the team also conducted detailed feather assessments, including examination of rectrix (tail feather) structure in species such as the Northern Waterthrush. These data contribute to accurate species identification, age and sex determination, molt status assessment, and evaluations of flight-related adaptations. Birds handled during the session included both migratory and resident species, such as White-throated Sparrows, Yellow-rumped Warblers, Northern Waterthrushes, and Brown-headed Cowbirds, providing a diverse sample for training and observation.



A key component of the training involved practicing brachial vein puncture for blood sampling, a minimally invasive and widely accepted technique in avian physiological and genetic research. These hands-on experiences directly support graduate research initiatives. Thompson's work will focus on genetic analyses of Cerulean Warblers, contributing to understanding gene flow and population genetic structure, and supporting conservation efforts for this rapidly declining species. Williams' research will assess blood metabolites in thrush species during fall stopover, advancing knowledge of physiological ecology and energy dynamics during migration.

The event also provided a platform for science communication and outreach. Visiting students toured the banding station and were introduced to avian research methods, species identification, and the broader goals of ecological monitoring. These interactions highlighted the importance of connecting technical research with public education and workforce development in natural resource fields.

Overall, this field training program demonstrates the integration of technical skill-building, collaborative learning, and applied research. By engaging in hands-on methodologies from mist netting and bird handling to morphometric and physiological data collection, NRES graduate students are developing the expertise needed to address real-world challenges in avian ecology and conservation.

All mist netting, banding, and blood sampling activities were conducted under appropriate state and federal permits. Research at Chapman Mountain Nature Preserve is supported by the Land Trust of North Alabama and grants from the Audubon Society and the USDA National Institute of Food and Agriculture.



Photos by Kira Williams and Dr. William Stone

# WANT TO KNOW MORE?

## >>> DR. ERNIE CEBERT SCHOLARSHIP FUND

“In lieu of flowers, the family asks you to consider donating to the Dr. Ernie Cebert Scholarship Fund to continue to move his legacy forward.”

<https://everloved.com/life-of/dr-ernst-ernie-cebert/>

## >>> US FOREST SERVICE MEETING

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## >>> STEM DAY NRES STUDENTS

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