VOL. 03. NO. 02



Department of Entomology and Plant Pathology Newsletter



# Greetings from your Department of Entomology and Plant Pathology

Some have suggested that the previous 'greetings' segments for this newsletter have been a bit too informal, so I decided to include citations this time around to allow for fact-checking and ensure the highest standards of data reporting. So, here goes ...

It's been another busy summer in the field, labs, and offices of ENPL. As the new academic year begins, activity on the UA-Fayetteville campus is buzzing (1). For those that have been away from campus for a while, you might be surprised to learn that UAF enrollment reached another record with 32,140 students this fall semester (2). Likewise, enrollment in Bumpers College is at a record high of 2,467 students. This growth in student numbers has meant that our course offerings continue to be very popular, and enrollment in our undergraduate minor programs is on the rise.

(1)Cheap Bee Jokes. Entomologia Whimsica vol. 31:6 (1989).

(2)Traffic Jams on the Rise in NW Arkansas. J. of Academic Parking Struggles, vol. 14:5 (2023). (3)Gatorade Sales Reach All-Time High. Lonoke County Post; July 28, 2023. (4)ENPL internal memo: Who has the keys to the van!?!? ; July 15, 2023.

Across the state, our hard-working faculty, staff and students endured another hot growing season while conducting first-rate field research (3). We also participated in numerous educational and outreach activities, including displays at farmers' markets and hosting of undergraduate research interns (4).

I hope you enjoy this update on some things happening in the unit. As alumni, former members, and friends of the department we appreciate your input and support. Please reach out any time to share information or discuss what is going on in the department.

Best wishes,

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Ken Korth **Department Head** kkorth@uark.edu



SCAN ME



GREETINGS FROM ENPL

**RECENT GRADS RECENT EVENTS** MEET NEW FACULTY **AWARDS & RECOGNITION ALUMNI UPDATES** NOTABLE MENTIONS

ENPL CLUBS

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Ken Korth

# Support our mission here: bit.ly/UAEntomology

As friends and alumni of our department, it is likely that you share in our mission and core values. Through study and application of entomology and plant pathology, we strive to promote human, animal, and plant health, environmental sustainability and food security.

To achieve our goals, we rely on financial support for enhancement of student opportunities and program growth. Your generous contributions can help as we strengthen learning activities and dissemination of our research and extension.

Click on the link here bit.ly/UAEntomology or scan the QR code to donate today. Thank you from all of us in the University of Arkansas Department of Entomology and Plant Pathology.









# Congratulations

#### **Recent Graduates from ENPL**

The Department of Entomology and Plant Pathology graduates from Spring 2023

#### Spring 2023

#### Trevor Newkirk. M.S. ENTO

Faculty Advisor: Nick Bateman Thesis:Evaluation of Rice Stink Bug, Oebalus pugnax F., Resistance to Lambda-cyhalothrin and Economic Impact on Rice Grain Quality for Multiple Foliar Insecticides





GRADS



#### Rachael Wolf. M.S. PLPA

Faculty Advisor: John Rupe Thesis: Molecular characterization of Corynespora cassiicola, the cause of target spot of soybean, and the use of a detached soybean leaf assay to evaluate resistance

#### Luis Marin-Ponce

Faculty Advisor: Clemencia Rojas Thesis: Understanding the function of AtNHR2A and AtNHR2B in plant immunity and as a target for the Pseudomonas syringae bacterial virulence factor HopD1





#### Zachary Murray. M.S. ENTO

Faculty Advisor: Ben Thrash Thesis: Evaluation of Bt Cotton Cultivar Efficacy and Economic Impact on Cotton Yield with and without a Foliar Insecticide Application

#### Adam Whitfield. M.S. ENTO

Faculty Advisor: Gus Lorenz Thesis: Evaluation of Thresholds, Control, and Behavioral Responses of Tobacco Thrips, Frankliniella fusca (Hitch), and Tarnished Plant Bugs, Lygus lineolaris (beauvoris), in ThryvOn Cotton



# **Recent Events**

### **Tomato Milkweed and Seed Sale**





For the Tomato Plant Sale, hosted by the Plant Pathology Graduate Student Association, we sold 2 varieties of pepper, 9 varieties of tomatoes, probably around 800 plants. The gross income is around \$3400 (including ~\$100 dollars donation from three customers).

There is a long list of dedicated volunteers from our department who came to help (including transplanting and selling: Dr. Austin Jones, Andrea Sierra Mejia, Baronger Beiger, Brooklynn Rogers, Catalina Rodriguez Puerto, Quirong Fan, Hannah Zima, Juanita Gil Bedoya, Mariana, Paige Cummins, Rafael Zaia, Racheal Wolf.). A big thank you to Devany Crippen for caring for the plants during the growth stage.

In conjunction with the Tomato Plant Sale, the Isely-Baerg Entomology Club sold milkweed plants along with native wildflower seeds. Items sold included common milkweed, showy milkweed, rose milkweed, butterfly weed, and pollinator seed packets. There were about 25 of each milkweed variety and they sold out in less than an hour! People wanted to buy as many as possible and I had to turn away about 50 people once we sold out. There was a large demand. We probably could've sold upwards of 500 plants and increased the price by a dollar. We made \$404.00 off of the milkweed and packets total.







### Faculty Member Austin Jones Leads Outreach Opportunities





First and second grade students of the S.O.A.R. after school program hosted Dr. Jones at a meeting of their "bug club," at Bayyari Elementary in Springdale. All 12 of the S.O.A.R. program school started bug clubs this year thanks to the suggestion of former ENTO 1023 student Ellery Bacon.

Hobbs State Park, Arkansas Largest, held events on April 15th for Earth Day as well as 100 years of Arkansas State Parks where the ENPL department was invited to host an informational booth on insects and other arthropods of Arkansas







An interactive entomology display was the centerpiece of the Amazeum Community Spotlight on April 26th in Bentonville. Here you see some of the hundreds of attendees learning from Kariyat Lab members Alejandro Marcano and Devi Balakrishnan, as well as undergraduate entomology minor students Baylie Day and Iris Evans.

#### Faculty Member Austin Jones Lead Outreach Opportunities cont.

AEGIS students got hands-on experience with entomology at the Ozark Natural Science Center on June 20th. The outreach event was designed to engage the participants with insect diveristy through interactive activities that emphasized experiential learning. The students were divided into three teams and explored the surrounding habitat to collect specimens. They were then asked to sort the insects to the lowest taxonomical standpoint, and the team with the most diversity won first place. Team #1 came through with the most points, but everyone did a spectacular job!



## **ENPL Department Hosts Booth at Farmer's Market**



This summer, our Department of Entomology and Plant Pathology embarked on an exciting adventure beyond the laboratory and into the heart of our local community. We hosted a booth at the vibrant Farmer's Market, bringing the fascinating world of insects and plant health to the public in a fun and interactive way. At the heart of this endeavor was our commitment to bridge the gap between science and the community, and what better place to do that than at the Farmer's Market? With a bustling crowd of curious shoppers, food enthusiasts, and families, this venue provided us with the perfect platform to share our passion for entomology and plant pathology.

### Spinach Conference Held in Melbourne, Australia

The 10th International Spinach Conference, hosted by the University of Arkansas Division of Agriculture, took place in Melbourne, Australia (April 28 – May 2, 2023). The meeting was hosted and sponsored by the University of Arkansas Division of Agriculture, East Gippsland Vegetable Innovation Days, Stuart Grigg Ag-Hort Consulting, Bulmer Farms, Food and Fibre Gippsland, National Vegetable Extension Network Victoria, Hort Innovation Australia, Agriculture Victoria, Bayer/Seminis, De Ruiter, AusVeg, BASF/Nunhems, E.E. Muir & Sons, Enza Zaden, Fairbanks Seed, The International Fresh Produce Association, Lefroy Valley/Pop Vriend Seed, OneHarvest, PMFresh, Rijk Zwaan Seed, Sormac, Syngenta, and Bejo Seed.



Pictured are the organizing committee members for the conference (in the back row from left to right:
Hannah Zima, Maria Villarroel-Zeballos, Jim Correll,
Stuart Grigg, Bonnie Dawson, and Andrew Bulmer; in the front row are Lindsey du Toit, Nathan McIntyre, and Tim Miller. Not pictured, Shelby Hanson).

Between 130-150 attended the formal presentations and the field day. Pictured are the attendees from one of the meeting sessions at RMIT (The Royal Melbourne Institute of Technology) University.





Pictured are Hannah Zima and Maria Villarroel-Zeballos at the spinach field day trial, next to marigolds used to promote beneficial parasitoids.



Pictured are the participants in the spinach field day sponsored by the conference in Bacchus Marsh, an hour outside of Melbourne.

### ilead

Through the Division of Agriculture Internal Leadership Education And Development program (iLEAD), participants identify and address real-world challenges facing the organization. The iLEAD program fosters a trusting, collaborative learning environment for the support of leadership skill development. The team approach supports the discovery of diverse perspectives, providing participants with a peer support network as well. iLEAD instructional goals and targeted outcomes include strengthening retention and programmatic efforts, while supporting internal leadership development aligned with the land-grant mission. The iLEAD program is designed to support and deepen the development of the leadership talent pool within the Division of Agriculture.

iLEAD provides Division of Agriculture professionals leadership development through training, hands-on experiences, and personal reflection to expand leadership capacity within the Division of Agriculture. The program is a developmental experience exploring critical and emerging issues to help Division of Agriculture personnel become effective leaders by improving their interpersonal skills, knowledge of the organization, communication skills, relationship building, program planning and development, leadership, and resource development skills.

The program has graduated 22 participants with 9 from Cohort II.











#### **ASLEA Tour Group Visits**

On June 12, The Department of Entomology and Plant Pathology hosted students and mentors from the Arkansas Lighthouse Summer Enrichment Academy (ALSEA). The Arkansas Lighthouse Charter Schools is located in Jacksonville (K-12), Pine Bluff (K-8) and North Little Rock (K-5) that aims to overcome academic achievement gaps resulting from multi-generational income inequities. The ALSEA summer program is a partnership between Lighthouse and the Dale Bumpers College of Agricultural, Food and Life Sciences, and is organized by Dr. Jackie Mosley, Assistant Dean for Diversity, Equity, and Inclusion. The program, which includes field trips to multiple departments within the college, aims to expose underrepresented students to the diversity of exciting educational and career opportunities in agricultural science, and to recruit students to the University of Arkansas.

"The ultimate goal of ALSEA is to provide AGRI-STEM curriculum and outreach to increase the number of underrepresented students pursuing agricultural degrees and entering the agriculture workforce in Arkansas. ALSEA also provides mentorship opportunities in partnership with U of A MANRRS; this past year we were able to create the very first Junior MANRRS chapter in the state with Lighthouse, and we have goals to create more across Arkansas" (Dr. Jackie Mosley).

The Department of Entomology and Plant Pathology hosted ~27 participants: fifteen 7th and 8th graders and seven educators from AR Lighthouse Charter Schools in Jacksonville, AR, and five University of Arkansas students who are serving as MANRRS (Minorities in Agriculture, Natural Resources, and Related Sciences) ambassadors and mentors to the ALSEA participants. Participants in the Entomology and Plant Pathology tour included petting hissing cockroaches, examining insects, nematodes, and plant pathogens under microscopes, and visiting stations on insect diversity, insects in art, plant diseases, pollinator biology, and molecular biology. ALSEA students also had the opportunity to talk to faculty (Dr. Fiona Goggin, Dr. Rich Adams, Dr. Joanna Kud), graduate students (Amina Twaibu, Alejandro Vasquez Marcano, Jessica Ayala, Leah Cuthill, Sherif Sharfadine), a postdoctoral scholar (Dr. Payal Sanadhya), and undergraduate interns (Emmanuel Flores, Evelyn Madrigal) about what it is like to study and









### **Cane Hill Bug Crawl Press Release**

The Department of Entomology and Plant Pathology was featured in the Cane Hill Bug Crawl Press Release of their Summer/Fall Newsletter 2023:

"The record-breaking August heat didn't stop nearly 100 insect-loving visitors from coming out for our second annual Bug Crawl! The University of Arkansas Entomology and Plant Pathology Department kicked off the day with a starter guide to what kinds of insects participants might find, and how to do a "crawl" safely (for visitors and the critters!).

After participants were done collecting, our UA partners helped folks identify what they'd found - one team was even able to identify 10 orders of insects! Participants could also make a seed butterfly with Northwest Arkansas Community College's Living Laboratory, paint a picture using cochineal bug dye with the Scott Family Amazeum, and grab a bite to eat from Deep South BBO."





### **Meet New Faculty**

We are fortunate to have outstanding new faculty join us this summer.



**Started at U of A: August** 2023 B.S. institution: Colby College Ph.D. institution: University of Oklahoma

#### About:

I grew up in Maine and love to be outside, hiking, camping. I enjoy reading and art.

Natalie Clay

**Research/Extension areas of interest:** Forest Health, Ecology, Entomology

# **Awards and Recognition**

### **ENPL Faculty and Staff Receive RoPE Awards**



In May, we celebrated TWO winners of Early Career Recognition of Professional Excellence (RoPE) Awards from the Agricultural Experiment Station.

Dr. Alejandro Rojas was awarded the RoPE award in the Faculty category. Alejandro is a skilled scientist and teacher who excels in all areas of the land-grant mission. He collaborates closely with Cooperative Extension faculty to monitor fungicide resistance for foliar pathogens of soybean and cotton in the field. His drive and professionalism make him an excellent role model for students and a valued collaborator by faculty and staff. Dr. Rojas joined the faculty in October, 2018.

Jenny Braun received the RoPE award in the category for Business & Administrative Support – Non-Classified Employees.

Jenny started work as Fiscal Manager for ENPL in June, 2020. Among many things that she does for our department and its members, Jenny received this award for her dedication and going above and beyond her stated duties. She has made innovative improvements to our internal accounting systems, and through these actions she advances the mission of the department in all areas of research, service and education.



### **ENPL Faculty Featured in THV11 News**



Dr. Emily McDermott was featured in THV11 News in regards to mosquitoes in Arkansas versus other states. To read the full article, see this website: https://www.thv11.com/article/life/animals/mosquitoes-inarkansas/91-6fd81ff3-3699-4026-956d-87c18f0b6340

# Awards and Recognition cont.

### **Faculty Receives Graduate Educator of the Month**

Dr. Alejandro Rojas has been nominated by multiple Graduate Students as the graduate educator of the month of February. Dr. Rojas is an assistant professor in the Entomology and Plant Pathology Department.

According to his students... "Dr. Rojas will help ANY student from any department or advisor. He is completely selfless and nothing but helpful."

"He is a great mentor not only to the students that he supervises but, in general, to all the students in the department. Dr. Rojas is an excellent model of a good mentor. He always inspires with his enthusiasm and is there for students, and helps them with any questions related to research. He is also the most caring, honest, and helpful professor I have ever met."



# Texas-to-Arkansas Summer Externship to Bolster Ag Research, Food Science Jobs



For the full article, see here.

Entomologist Rupesh Kariyat developed a summer externship program with the University of Texas Rio Grande Valley to empower Hispanic student researchers of agriculture and food science.

The project aims to provide students the training necessary to work in agriculture. Kariyat, associate professor of crop entomology for the Arkansas Agricultural Experiment Station, received a \$481,000 grant from the U.S. Department of Agriculture's Research and Extension Experiences for Undergraduates program to fund the summer externship for three years.

# Awards and Recognition cont.

#### Entomology Students win SEB awards

- Amina Twaibu: First Place (M.S. Entomology, Neel Joshi Lab)
- Lilia Stemet: First Place (Ph.D. Entomology, Neel Joshi Lab)
- Olivia Kline: Second Place (Ph.D. Entomology, Neel Joshi Lab)
- Paige Cummins: Second Place (M.S. Entomology, Ashley Dowling Lab)
- We are also proud of our former graduate student, Caleb Rice (MS Entomology), who won first place, and another UA graduate student, Jared Linn (M.S. Horticulture), who secured second place.





### Entomology Students Receive Bumpers Awards

Bumpers College Awards Ceremony Recipients:

- Parker Mullins 2023 Outstanding MS Student award
- Olivia Kline 2023 Outstanding PhD Student Award

# **Plant Pathology Students Receive Awards**

- Juanita Gil Bedoya Elza Monroe "Monty" Cralley Award
- Qiurong Fan- Monroe Jack Goode Scholarship
- Andrea Sierra Mejia- Kyung Soo Kim Graduate Award and Student Travel Grant from the Virology Fund







# Awards and Recognition cont.

### **Faculty Members Featured in News**

#### A number of faculty members have been featured in the UADA News this summer. Below are the titles and a brief synopsis of each article:

#### Scout now to manage sheath blight in rice

- Arkansas rice moving into reproductive stages, becoming susceptible to sheath blight
- Recent and upcoming rains could cause disease to progress more quickly
- Specialists recommend scouting, applying fungicide only when necessary

Read the full article here

#### Arkansas plant pathologists develop novel protocol to verify diagnostic tests

- Patent-pending protocol creates an artificial positive control to validate diagnostics
- Saves time and money compared to typical method
- New method distinguishes between contamination and infection
- <u>Easily utilized by laboratories that use polymerase chain reaction-based diagnostics</u> Read the full article here

#### Researchers trace ancestry of Arkansas honeybees to original 'colonists'

- First honeybees brought to America were western European dark bee subspecies
- "Italian" honeybee subspecies replaced them in 19th century
- Genetic link to those first European dark bees found in Arkansas domesticated honeybees Read the full article <u>here.</u>

#### Molecular survey of parasite threats helps Arkansas beekeepers protect their colonies

- Researchers conducted a survey of Arkansas honeybee parasites and pathogens
- Varroa mites tiny "vampires" are biggest threat to colonies
- Read the full article <u>here</u>

#### Entomologists study how colors attract wild bees to improve surveys, other research

- Bees associate colors with desirable flowers
- Researchers find different colors appeal to different bee species
- Monitoring traps aid in determining species populations, behaviors Read the full article <u>here</u>

# Alumni Updates



#### Lou Hirsch

Degree(s), Program(s) and year(s): MS Plant Pathology 2009–2010, PhD Plant Science 2010–2015

Your graduate advisor(s): Burt Bluhm (for both)

Current position: Assistant Professor, University of Kentucky Department of Plant Pathology, Lexington, KY.

Something important you learned in grad school?

I learned that it is important for students to develop a diverse skillset outside of their project, and cultivate close mentorship relationships with successful professionals who are a couple of degrees removed from their research. My career ended up moving away from conducting research after graduate school, and I leaned on my research experiences as much as all the non-lab connections I made to help me get to where I am now. A brief update about you (this can include information about your career, what you did after grad school, your family, etc.; please keep to 3-4 short paragraphs):

After I left UArk, I taught classes and supervised several undergraduate researchers for a year at Coker College, a liberal arts college in rural South Carolina. That experience was immensely formative for me as an educator because it was the first time that I was part of a community that focused on pedagogy rather than research. Also, I was able to have near total control of my course structure (which was wild because I had 0% training on how to teach), so I was able to develop my own instructional voice and start learning what worked (and what didn't!) in real classrooms. After that one-year opportunity ended, I worked as a research scientist at the Veterans Administration (VA) hospital in Charleston, South Carolina researching genetic mutations in combat veterans that correlated with different mental health conditions. It was a bit of a shift moving from fungal to human genetics, but my research training served me well and I was able to quickly contribute to numerous projects. Then, after a year at the VA, my wife received a wonderful faculty offer in the Department of Psychology at the University of Kentucky, and she was able to negotiate a temporary post-doctoral position for me, so off we moved to Lexington.

At UK, I initially split my time between the Departments of Plant Pathology and Biology. In Plant Pathology, I taught the Principles of Plant Pathology undergraduate course and the freshmen lab class for an interdisciplinary program in the College of Agriculture, Food and Environment called Agricultural and Medical Biotechnology. In Biology, I developed educational outreach programs at an off-campus biological field station and formed valuable connections to leaders in local and regional K-12 school systems. After a year, the Department of Plant Pathology hired me as a Lecturer, which is non-tenure eligible faculty position. As a Lecturer, I was charged with developing new courses in support of college programing, developing science educational programs for local schools, and administering the Agricultural and Medical Biotechnology program. Two years ago, I was promoted to a tenure-eligible Assistant Professor position doing essentially the same work.

I have really enjoyed my time at UK, mainly because I was given wide latitude to develop my own programing and pursue my own pedagogical and programmatic interests. Since I joined the faculty at UK, I have developed six new courses ranging from lecture, laboratory, discussion, and study abroad experiences and taught or co-taught 14 different courses in four different academic programs targeting populations ranging from first-semester undergraduates to Ph.D. candidates. I serve as the Director of Undergraduate Studies for two majors, the Agricultural & Medical Biotechnology and Agriculture Individualized programs. I have continued my educational outreach by developing or participating in over 100 events ranging from farmers market booths to state-wide teacher trainings, and publish my scholarship in pedagogical journals. I am also intensely engaged with numerous high-profile undergraduate scholar programs, the UK Lewis Honors College, and many academic fellowships and training groups on campus. My work has been acknowledged by a few college- and university-level teaching awards, which I never anticipated receiving all those years ago working nights in grad school. It's still a bit weird that I have become a resource for quality teaching at UK despite just kind of figuring it out along the way, but I am really excited to be in a position to help improve the learning environment for undergraduates in my programs.

# **Notable Mentions**

### **Donation to Arthropod Museum**



#### Thank you for the kind gift!

Lee Meehan, pictured here with her husband Bob, made a generous donation of ornate insect specimens and marine invertebrate shells to our Arthropod Museum and for outreach activities. Lee and Bob delivered the specimens and took a tour of the Museum and the adjoining University of Arkansas Herbarium. They reside in Rogers, AR and have a strong interest in nature and agriculture.

### **Pink Grasshoppers Found in Arkansas**

In April 2023, two separate individuals reached out to us via email to report an extraordinary occurrence: the sighting of pink grasshoppers in Arkansas!

While grasshoppers are a common sight in many regions, the presence of pink grasshoppers is exceedingly rare. These remarkable insects their unique owe coloration to a condition known as erythrism, which is caused by a genetic mutation. The mutation affects the production of pigments, resulting in an unusually high concentration of red pigments in their exoskeleton.



Photos by: Emilie and Bridgitt Ragsdale

# **Entomology & Plant Pathology Clubs**

### **Isely-Baerg Entomology Club**

My name is Blythe and I am a third year Ph.D. student in the entomology department. My dissertation research focuses on assessing the ectoparasiticide, fluralaner, beyond its current label in veterinary medicine for expanded use that includes pestiferous fly species. I have the privilege of serving as President of the fantastic group of students that make up the Isely-Baerg Entomology Club. We are an active unit that takes on multiple activities beyond our coursework and research projects. The biggest emphasis for our club is on sharing our enthusiasm for entomology with others. In the past year our members have volunteered at numerous outreach and education events for school children and the public. By far our biggest activity in fall 2022 was in organizing displays and activities at the Arkansas Insect Festival, which hosted over 4,000 visitors over the course of one day.



Blythe E. Lawson, M.S. Ph.D. student President, Isely-Baerg Entomology Club



Brooklyn Goulais, M.S. Student President, Plant Pathology GSA

## **Plant Pathology GSA**

Greetings from the Plant Pathology Graduate Student Association (GSA)! My name is Brooklynn Goulais and I am the new president of the GSA. I am a second year MS student studying the rice blast fungus, Magnaporthe oryzae, in Dr. Martin Egan's fungal cell biology lab. Throughout the year, the PLPA GSA organizes several activities for students and others in the department, ranging from social events to volunteer efforts at the Fayetteville Farmers' Market. In 2022 as well as 2023, we conducted a large garden-plant sale and used the proceeds to host special seminar guests and help pay for student travel to professional meetings. All these activities help us to pursue our club mission, which is to develop a strong group that benefits students before, during, and after their studies, and to further promote the excellence of the Department of Entomology and Plant Pathology.

### In Remembrance

# **Chad Mills**

Thank you for many years of service with the University of Arkansas and the Division of Agriculture

The department suffered a great loss this summer as we said goodbye to a dear friend and colleague. Chad Thomas Mills, age 42, passed away on June 24th, 2023, at his home in Elkins, Arkansas. Born on March 12th, 1981, in Tulsa, Oklahoma, Chad was a remarkable individual whose impact on our lives will forever be cherished.

Chad's contributions to the University of Arkansas Department of Entomology and Plant Pathology were immeasurable. As the Departmental Administrative Manager, he played a vital role in supporting the academic pursuits of countless students and faculty members. His dedication, professionalism, and unwavering commitment to his work left an indelible mark on the department and its community. Chad never thought a task was too small for him, and he helped everyone, including students, staff, and faculty in the same way.

Beyond his professional life, Chad was a man of many passions. Chad was an avid outdoorsman, proud Eagle Scout, talented home chef, novice gardener, and stellar D&D player. He will be remembered for his quick wit, kind heart, and generous spirit. He was a loving husband to Rachel Mills, who along with Chad became a great supporter and member of the ENPL community. Chad was a devoted father to his sons Andrew Mills (Christina Leng), Alex Mills, and Aydin Mills. Chad is also survived by his grandmother Valeria Mills, mother Kimberly Mills, sister Danielle Simmons, and aunt, Debi Officer. Chad was preceded in death by his grandpa Bobby Gene Mills, uncles Thomas Mills and Tim Mills, and brother Christopher Ferraro II. A ceremony honoring Chad's life was held Saturday, July 8th at TheaterSquared in Fayetteville, AR.



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Chad Mills

# WHAT WE STAND FOR



The Department is a global leader in entomology and plant pathology; promoting human, animal, and plant health, environmental sustainability and food security.

#### **Our Mission:**

The Department serves science and society through discovery, translation and dissemination of knowledge and resources to promote human, animal, and plant health, environmental sustainability

and food security.

Authored and adopted by the faculty, March 2021

If you would like to contribute to the Department of Entomology and Plant Pathology, please visit us at: <u>bit.ly/UAEntomology</u> or scan the QR code to the right.



# **CONNECT WITH US**

Alumni, we would love to hear from you! Reach out to us with updates or let us know how you are using that ENPL degree at enpl@uark.edu. We would love to feature you in our department newsletter.

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