UNT COLLEGE OF SCIENCE Department of Biological Sciences

BIOsphere

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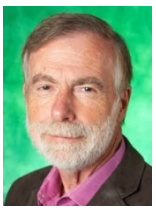
Faculty News


Dr. Jim Kennedy

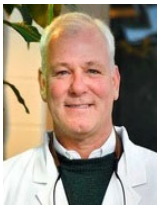
Regents Professor **Dr. James (Jim) Kennedy** retired after 39 years of service to UNT. Dr. Kennedy has distinguished himself as a teacher, educator, and researcher, and provided extensive service to UNT and beyond. His activities have had an international reach. Dr. Kennedy has taught several courses, including Insect Biology, Aquatic Insects, Aquatic Insect Ecology, Stream Ecology, Contemporary Biology, and Sub-Antarctic Bio-Cultural Conservation. He earned several teaching awards. His research on freshwater ecosystems in the USA and Chile resulted in over 100 peer-reviewed papers in top journals, several book chapters and books. He has mentored over 70 graduate students who have successfully transitioned into relevant professional positions. His leadership, mentorship, and commitment to the academic community have earned him prestigious awards, including the Citation for Distinguished International and the Ronald E. McNair Program Service Awards. Internationally, he was named a Fulbright Scholar in the Senior Specialist Program to develop UNT's Chile program. Dr. Kennedy's initiatives, such as the UNT field station, The Elm Fork Natural Heritage Museum, the undergraduate ecology degree, and the Chile program, have created opportunities for future generations of faculty and students. In 2022, the UNT Foundation honored Dr. Kennedy with its Eminent Faculty Award, one of the University's highest honors, for his outstanding and sustained contributions to scholarly-creative activity, teaching, and service. He has consistently ranked as one of the top faculty in the Department. **Dr. Kennedy** shared the following message: “After nearly four decades at North Texas State University and the University of North Texas, I am retiring. I am deeply grateful to the University for the opportunities it has provided me to develop my research program and advance my academic career. In turn, I hope that my contributions to the University, college, and department have made North Texas programs better. Any success I achieved at UNT is due to the support of my outstanding mentors and colleagues—both faculty and staff—as well as the countless undergraduate and graduate students I have had the privilege of working with over the years. I take special pride in having mentored over 70 graduate students, all of whom have enjoyed successful careers in academia, non-governmental organizations (NGOs), government, and industry. Ultimately, they will be my lasting legacy.” The Department of Biological Sciences wishes Dr. Kennedy all the best in this new phase of his life. The Department has nominated Dr. Kennedy for Emeritus status.


Dr. Warren Burggren


Dr. Vladimir Shulaev


Dr. Jyoti Shah

Congratulation to Department of Biological Sciences faculty **Drs. Warren Burggren**, **Kent Chapman**, **Jyoti Shah, Vladimir Shulaev**, **Richard Dixon** (Emeritus faculty), **Guenter Gross** (retired) and **Thomas Beitinger** (retired) for being included in the career ranking of world’s top 2% cited researchers within their specialty areas. In addition, **Drs. Richard Dixon**, **Vladimir Shulaev**, **Jyoti Shah**, **Warren Burggren**, **Kent Chapman,** and **Brian Ayre** were included among the top 2% ranking for a single year (2023). The ranking method is based on standardized citation metrics developed by statisticians at Stanford University (Ioannidis, John P.A. 2024, August 2024 data-update for "Updated science-wide author databases of standardized citation indicators”, Elsevier Data Repository, V7, doi: 10.17632/btchxktzyw.7)


Dr. Kent Chapman


Dr. Richard Dixon


Dr. Brian Ayre

Dr. Vladimir Shulaev, Professor from the Department of Biological Sciences and member of the Advanced Environmental Research Institute (AERI) is the recipient of a Fulbright U.S. Scholar award for 2024-2025. Fulbright Scholar Awards are prestigious and competitive fellowships that provide unique opportunities for scholars to teach and conduct research abroad. Fulbright scholars also play a critical role in U.S. public diplomacy, establishing long-term relationships between people and nations. Alumni of the Fulbright Program include 62 Nobel Laureates, 89 Pulitzer Prize winners, 80 MacArthur Fellows, and leaders and world-renowned experts in academia and many other fields across the private, public, and non-profit sectors. Fulbright exchange experiences lead to greater international co-publication, continued international exchange, and stronger cross-cultural communication skills.

The overall goal of Dr. Shulaev’s Fulbright project is to develop a novel framework for monitoring climate change impact on chemical diversity in the sub-Antarctic ecoregion. Dr. Shulaev shared that the effect of global climate change on food security and nutritional value requires rigorous studies. It is important to explore the potential effects of climate change on the variation in chemical composition and health benefits of the native flora of the sub-Antarctic ecoregion. His activities as Fulbright scholar in Chile will be part of ongoing informal multidisciplinary collaboration between UNT, Cape Horn International Center (CHIC), University of Magallanes, University of Talca, and University of Chile. There are limited number of places left that are not impacted by chemical pollution and anthropogenic effects. One of these places is in the archipelagoes of Cape Horn at the southern end of the Americas. Cape Horn International Center (CHIC), directed by UNT Faculty Prof. Ricardo Rozzi. UNT is a partner of the Cape Horn International Center (CHIC), a center for global change studies and biocultural conservation funded by the Chilean Ministry of Sciences and located in Puerto Williams, capital of the Chilean sub-Antarctic and Antarctic regions. In 2005, the Cape Horn archipelago was granted by UNESCO the status of Biosphere Reserve, making this location a unique natural laboratory to study responses to global trends in climate change by accessing biodiversity and chemical diversity. Utilizing the unique environment of the Cape Horn the collaborative team will focus on characterizing the metabolomes and genomes of lichens, bryophytes, and the Patagonian currant *Ribes magellanicum* to estimate their genetic and biochemical potential and develop rigorous criteria to estimate chemical diversity. These chemical and genomic data will be combined with data on climate change collected at CHIC to connect chemical diversity with climate change. Dr. Shulaev will also teach a short course on Advanced Techniques in Systems Biology and OMICS Research. This course will be offered to graduate and undergraduate students at the University of Talca, University of Chile, and University of Magallanes. This course will teach students the basic principles and cutting-edge techniques of OMICS (transcriptomics, proteomics, metabolomics, and bioinformatics) research, system biology, and functional genetics, as well as grant writing.

This project will also impact the indigenous communities living in the Magellanic sub-Antarctic ecoregion. Wild berries have a long history of use among Amerindians of Patagonia and played a relevant role in their gathering for subsistence. Understanding the chemistry and health benefits of wild Patagonian berries will help to preserve this important species in their native ecosystem, promote their domestication and provide healthier food and additional source of income for local communities. More on Dr. Shulaev and the Fulbright Scholar Program can be found at the UNT Research and Innovation website: https://research.unt.edu/news/fulbright_2024.html

Student Awards

Adrian Heckart, MS student in Dr. Ana Alonso's Lab, won first place in the 3MT competition ($3,000 price), and will be moving to the next level of the competition. Adrian says: "I am honored to have won this year's Three Minute Thesis (3MT) competition. The event challenged me to explain my complex research on deciphering the metabolism of a human fungal pathogen into a concise and engaging presentation for a diverse audience. It was an incredibly rewarding experience to share my work and its potential impact in an accessible format. I am proud to represent the University of North Texas and the BioDiscovery Institute as I advance to the next stage of the 3MT competition. Many thanks to my advisor and peers for their invaluable support throughout this journey." More on Adrian's award can be found at the UNT Research and Innovation website: https://research.unt.edu/news/student_researching_disease-causing_fungus_takes_first_in_unt_3mt_competition.html

Adrian Heckart

UNT's 3MT Competition awardees with Dr. Joseph Oppong, Associate Dean of the Toulouse Graduate

UNT Undergrads win awards at the Texas Society for Ecological Restoration (TXSER) Twenty-three UNT students attended the 27th Annual Texas Society for Ecological Restoration (TXSER) meeting in Houston, accompanied by Dr. Jaime Baxter-Slye and Lab Supervisor Jenny Gnau. All the students' travel and registration costs were fully funded by the Raupe Travel Grant, COS Undergraduate Travel scholarship, Advanced Environmental Research Institute, Department of Biological Sciences, and grants from the City of Corinth and TXSER. At the conference, UNT students presented collaborative research posters. Two posters were awarded "Outstanding Undergraduate Poster" awards!

Staff Awards

Deborah (Deb) Douglas, Biology Administrative Specialist is the November 2024 recipient of the COS Excellence in Mastering Challenges Continuously (E=mc²) Staff Award. This award recognizes staff for their distinguished track record of conscientious work supporting our faculty, staff, and students. She received a voucher for a free meal at Avesta from Dean Quintanilla. More on Deb's award can be found at: https://cos.unt.edu/news/2024-nov-emc2-deborah-douglas.html

Deb Douglas with Dean Dr. John Quintanilla

Staff Appointments

Kayla Shepherd has joined the Department of Biological Sciences as a Student & Program Coordinator. She has previous higher education experience at Texas Woman's University - Houston. Kayla previously worked as a substitute teacher, focusing on middle school and high school students. Prior to her career in education, Kayla held various roles in the automotive industry. She is currently pursuing a Bachelor of General Studies degree, concentrating in Business, Psychology, and English, with a minor in Criminal Justice.

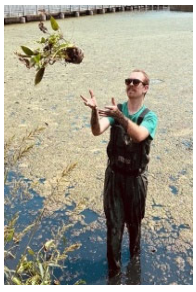
Kayla Shepherd

Outreach Activities

City of Corinth Retention Pond Aquatic Planting and Cross Timbers Sandy Prairie Seeding: In October, interns Calvin Nering and Nicolette Peters with Environmental Science MS student Madison Rutherford led undergraduate students to revitalize the City of Corinth Community Park by planting aquatic pond plants and seeding a new wildflower area. This work was funded by the City of Corinth Public Works department with Jaime Baxter-Slye advising.








From top left to bottom right: Erosion control blanket and seed installation of new wildflower pocket prairie; students who helped with aquatic planting; Nicolette Peters; Madison Rutherford; Calvin Nering; Faith Ludbrook, Emma Davis, Roman Capetillo planting pond plants

Drs. Moo-Yeal Lee and Neil Smatresk at the University Research Day

Start Smart: Best Practices for Creating a Startup Professor of biology and former UNT president Dr. Neal Smatresk is currently creating curriculum for a class called STEM Startups, which launches in Spring 2025. The course will educate graduate students from the College of Engineering and the College of Business about building a startup from the ground up. More on the STEM Startups can be found at the University of North Texas Research and Innovation website's University Research Day Panel Discussion: https://research.unt.edu/news/research_day_2024.html

Thesis and Dissertation

Congratulations to our graduate students who successfully defended their thesis/dissertation.


Hayley Valdez

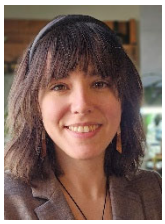

Jordan LaChance


Jyotheeswaran Panapakam

Hayley Valdez successfully defended her MS thesis titled “Unraveling Respiratory Physiology and Morphology: Influences of Temperature and Oxygen on Respiration in Bristlenose Plecos (*Ancistrus cirrhosus*)”. Her major professor was Dr. Ed Dzialowski. She is planning to pursue biotechnology, continue working in a lab, and furthering her education.

Jordan LaChance successfully defended her MS thesis titled "Comparative Study of Biomass, Physiology, and Metabolome in High and Low Oil-producing Varieties of *Physaria fendleri*, a Promising Hydroxy-fatty Acid-Rich Oilseed Crop," Her research explored important aspects of this emerging oilseed species. Jordan graduated in December 2024 with a Master of Science in Biochemistry and Molecular Biology. Her major Professors were Dr. Ana Paula Alonso and Dr. Mauricio Antunes.

Jyotheeswaran Panapakam successfully defended his Ph.D. dissertation titled, "Natural Product Screens for Anti-thrombotic Activity Using Zebrafish As Model Organism". His major professor was Dr. Arthur J. Goven. Jyotheeswaran is currently working as a Visiting Assistant Professor of Biology at Millsaps College, MS.


Katherine Burbules


Payton Whitehead


Sanchi Dhinoja

Katherine Burbules successfully defended her MS thesis titled “Respiratory physiology and combined temperature and hypoxia tolerance of the oriental weather loach, *MISGURNUS ANGUILLICAUDATUS*". Her major professor was Dr. Warren Burggren.

Payton Whitehead successfully defended his Ph.D. dissertation titled “Specialized Lipid Droplet Associated Proteins are Required for the Selective Packaging of Various Lipid Classes into Lipid Droplets". His major advisor was Dr. Kent Chapman. Payton’s immediate plan is to continue working in Chapman’s Lab for the remainder of the Spring semester. He will graduate in May.

Sanchi Dhinoja successfully defended her thesis titled “Studies on zebrafish hemostasis disorders”. She graduated in Fall 2024 and her major professor was Dr. Pudur Jagadeeswaran. She is seeking opportunities to leverage her Ph.D. expertise and former genetic counseling experience to drive innovative therapeutic solutions, bridging advanced genetic research with impactful patient care in academic or industrial settings.

Extramural Grants and Contracts

Engineering condensed tannins in soybean and maize. Grasslanz Technology Ltd, New Zealand. PI: Nan Lu. $486,504. 12/01/24-11/30/26.

Publications

Cai, Y., and Horn, P. J. (2024). Packaging “vegetable oils”: Insights into plant lipid droplet proteins. *Plant Physiology*, kiae533. doi:10.1093/plphys/kiae533

Fahlman A, Burggren W, Milsom WK. (2024) The role of cognition as a factor regulating the diving responses of animals, including humans. J Exp Biol. 227(20):jeb246472. doi: 10.1242/jeb.246472.

Guzha, A., Gautam, B., Marchiafava, D., Ver Sagun, J., Garcia, T., Jarvis, B.A., Barbaglia-Hurlock, A.M., Johnston, C., Grotewold, E., Sedbrook, J.C., Alonso, A.P. and Chapman, K.D. (2024), Targeted modulation of pennycress lipid droplet proteins impacts droplet morphology and seed oil content. Plant J, 120: 2151-2171. doi: 10.1111/tpj.17109

Le, M.P., Burggren, W., Martinez-Bautista, G. Development and sex affect respiratory responses to temperature and dissolved oxygen in the air-breathing fishes *Betta splendens* and *Trichopodus trichopterus*. Fish Physiol Biochem. 2025 Feb;51(1):1-22. doi: 10.1007/s10695-024-01411-9.

Maneekul, J., Chiaha, A., Hughes, R., Labry, F., Saito, J., Almendares, M., Banda, B.N., Lopez, L., McGaskey, N., Miranda, M., Rana, J., Zadeh, B.R., Hughes, L.E. (2024) Investigating novel *Streptomyces* bacteriophage endolysins as potential antimicrobial agents. Microbiol Spectr. 13:e0117024. doi: 10.1128/spectrum.01170-24.

Martinez-Bautista, G., Padilla, P., Burggren, W. (2024) Genetic basis for morphological variation in the Zebrafish *Danio rerio*: Insights from a low heterozygosity line. Fishes. 9(5), 164. doi.org/10.3390/fishes9050164.

McFarlin, B.K., Bridgeman, E.A., Curtis, J.H., Vingren, J.L., Hill, D.W. (2024) Baker's yeast beta glucan supplementation was associated with an improved innate immune mRNA expression response after exercise. Methods. 230:68-79. doi: 10.1016/j.ymeth.2024.07.013.

McFarlin, B.K., Deemer S.E., Bridgeman, E.A. (2024) Oral Spore-Based Probiotic Supplementation Alters Post-Prandial Expression of mRNA Associated with Gastrointestinal Health. Biomedicines. 12(10):2386. doi: 10.3390/biomedicines12102386. PMID: 39457699; PMCID: PMC11504401.

Rasoul, A., Johnston, C.R., LaChance, J., Sedbrook, J.C., and Alonso, A.P. (2024) Propelling sustainable energy: Multi-omics analysis of pennycress *FATTY ACID ELONGATION1* knockout for biofuel production. Plant Physiology. doi:10.1093/plphys/kiae650

Rossitto, J., Crossley II, D. and Burggren, W. (2024) Beta-adrenergic blockade via atenolol negatively affects body and heart mass and renal morphology in the developing chicken (*Gallus gallus domesticus*). Comparative Biochemistry and Physiology C. 29:289:110089.

Shah, J. (2024) Harnessing inherent immune defenses of crops for sustainable pest management. Front. Sci. 2: 1480752. doi: 10.3389/fsci.2024.1480752

Zhuo, C., Wang, X., Shrestha, H.K., Abraham, P.E., Hettich, R.L., Chen, F., Barros, J. and Dixon, R.A. (2024). Major facilitator family transporters specifically enhance caffeyl alcohol uptake during C-lignin biosynthesis. New Phytologist doi: 10.1111/nph.20325.

Oral Presentations

Comparison of traditional machine learning, deep learning models & graph representation learning-based baseline models to predict comorbidities of diabetes Denton, Texas. November 11, 2024, Invited Seminar, BioDiscovery Institute by Most Tahmina Rahman

Discovery of a novel carbonic anhydrase in *Methylococcus capsulatus* Denton, Texas. October 7, 2024, Invited Seminar, BioDiscovery Institute by Spencer Lee

Educational Experiences Training Undergraduate Students in Bacteriophage Methods. Lee Hughes. Invited Keynote. Bacteriophages and their Applications for the Environment, Second International Conference, Lima, Peru. October, 2024.

Educator. Introduction to Entomology. Texas Master Naturalist, Elm Fork Chapter Annual Training. 2024 Talk by Baxter-Slye JL.

Elucidating the Cellular Machinery for Lipid Storage in Plants: Current Advances and Future Opportunities. Texas Woman's University. October 4, 2024. Invited seminar by Dr. Yingqi Cai.

Engineering Methanotroph, *Methylococcus capsulatus* Str. Bath, for Muconate Biosynthesis from Methane Denton, Texas. October 14, 2024, Invited Seminar, BioDiscovery Institute by Layla Dale

Experiences in Searching for Environmental Bacteriophages. Lee Hughes. Invited Workshop. Bacteriophages and their Applications for the Environment, Second International Conference, Lima, Peru. October, 2024.

Exploring the Impact of Lysogeny on Antibiotics Production in Streptomyces griseus Denton, Texas. October 21, 2024, Invited Seminar, BioDiscovery Institute by Ahmad Sulaiman

Finding Molecular Partners of Membrane Bound Proteins Involved in Plant Fatty Acid Metabolism Denton, Texas. October 7, 2024, Invited Seminar, BioDiscovery Institute by Zach Vansaders

HR4: A Green peach aphid resistance gene that also initiates an antiviral response. University of North Texas Research Day, Denton, TX. Talk presented by Dr. Anil Girija, Oct 4, 2024. Co-authors, Moon Twayana, Shreya Nair, Beatriz Alapatt, Siddhartha Shah, and Jyoti Shah.

Identification and Analysis of Prions in Plants: Significance in Plant Physiology, Denton, Texas. October 14, 2024, Invited Seminar, BioDiscovery Institute by Ambarish Kumar

Jyoti Shah was an invited panelist at the Frontiers in Science Forum Deep Dive on '*Boosting plant immunity for sustainable agriculture*', which was held virtually on Thursday, 5 December at 16:00 CET (09:00 US CST). This forum attracted over 200 attendees from 49 countries. Dr. Shah also contributed to a viewpoint article that preceded this Deep Dive forum. The viewpoint titled 'Harnessing inherent immune defenses of crops for sustainable pest management,' was published in Frontiers in Science. Front. Sci. 2: 1480752. Doi: 10.3389/fsci.2024.1480752

Frontiers in Science Forum Deep Dive

Lipidomic study in biomimetic culture models for nanotherapeutic targeting of lung cancer and fibrosis Denton, Texas. November 18, 2024, Invited Seminar, BioDiscovery Institute by Afia Ibnat Kohon

Native your Urban. Baxter-Slye JL host and organizer. Houston, TX. 2024. Plenary & Panel for Texas Society for Ecological Restoration Annual meeting with Mayor TJ Gilmore, Stacie Anaya, Chris Chastain, Pat Thompson, and Jaime Gonzalez.

Native Your Urban: How the City of Lewisville Transformed Successful Progress to Include Native Texas Blue-green Spaces Around Town. Annual State Texas Master Naturalist meeting, San Marcos, TX. 2024. Talk by Baxter-Slye JL. and Gilmore TJ.

Navigating Microbiology and Biology Education Careers: The Power of Community. Lee E. Hughes. Invited Keynote. American Society for Microbiology Conference for Undergraduate Educators, Pittsburgh, PA. November, 2024.

Packaging Vegetable Oils: The Cellular Machinery for Lipid Droplet Biogenesis in Plants. Washington State University. December 9, 2024. Invited seminar by Dr. Yingqi Cai.

Predicting Patients'Mid Cognitive Impairment State Using Multi-Omics Data Denton, Texas. November 11, 2024, Invited Seminar, BioDiscovery Institute by Yashu Vashishath

Synergistic Solutions: The Impact of Plant Genotype and Microbes on Heavy Metal Stress Responses Denton, Texas. November 4, 2024, Invited Seminar, BioDiscovery Institute by Reena Sharma

Tissue-specific expression analysis of miRNA395 and miRNA171 gene family members in Arabidopsis plant Denton, Texas. November 18, 2024, Invited Seminar, BioDiscovery Institute by Md Shoyeb

Understanding the role of the microprocessor complex in miRNA biogenesis Denton, Texas. October 21, 2024, Invited Seminar, BioDiscovery Institute by Jesseca Hemminger

Packaging Vegetable Oils: The Cellular Machinery for Lipid Droplet Biogenesis in Plants Denton, Texas. December 2, 2024, Invited Seminar, BioDiscovery Institute by Yingqi Cai

Conference Presentations

Alatoum, M., and Shah, J. Abietane diterpenoids contribute to the induction of systemic acquired resistance in plants. Poster presented by Mohammad Alatoum. UNT Research Day, October 4, 2024.

Deeb, B., Rust, G., Rajendran, J., Horn, P. (2024). Characterizing Biochemical Pathways for Producing Cyclic Fatty Acids in Cotton. University Research Day 2024, Denton, TX.

Emadi, C., Dos Santos Neto, F., Smithers, B., Acevedo, M., and Mager, E. (2024) Effects of Salinity on the Toxicity and Real-Time Metabolic Rate Responses of Acute Ammonia Exposure to Juvenile *Macrobrachium rosenbergii*. Society of Environmental Toxicology and Chemistry North America Annual Meeting, Fort Worth, TX.

Heckart, A., Ray, S.C., Cocuron, J.C., Rappleye, C.A., Alonso, A.P. (2024) Metabolomic Analysis on *Histoplasma capsulatum* Reveals Pathogenic Mechanisms, University Research Day 2024, Denton, TX.

Giron, A., Bednarz, J., and Baxter-Slye, JL. (2024). Assessing Cardinal Direction of Avian Window Strikes on the University of North Texas Campus. Undergraduate poster presentation, Texas Chapter of The Society for Ecological Restoration Annual Meeting, Houston, TX.

Heath, A., McKinnis, A., Nichols, S., Martinez, J., and Baxter-Slye, JL. (2024). Pathways of Success for the University of North Texas Student Chapter of the Society for Ecological Restoration. Undergraduate poster presentation, Texas Chapter of The Society for Ecological Restoration Annual Meeting, Houston, TX.

Islam, MA, Mittal, I., Shulaev, E., Girija, A., Scofield, S., and Shah, J. Enhanced Resistance to the fungal pathogen *Fusarium graminearum* conferred by loss of *NPR3* and *NPR4* function in *Arabidopsis* and wheat. Poster presented by Dr. Md Ashraful Islam. UNT Research Day, October 4, 2024.

Islam, M. A., Mittal, I., Shulaev, E., Girija, A., Dong, Y., Scofield, S., Shah, J. Loss of *NPR3* and *NPR4* function enhances resistance to the fungal pathogen *Fusarium graminearum* in *Arabidopsis* and wheat. Poster presented by Dr. Md Ashraful Islam. 2024 National Fusarium Head Blight Forum, Austin, Texas; December 8-10, 2024.

King, J, Horn, P. (2024). Investigations of redox-based post-translational modifications on *Arabidopsis thaliana* stearoyl-ACP-desaturase. American Chemical Society- Southwestern Regional Meeting: Biochemistry Division, Waco, TX.

Kroen, K., Brown, D., Duvall, J., Mann, B., and Baxter-Slye, JL. (2024). Biodiversity of the UNT Pollinative Prairie and Diamond Eagles Community Learning Area: observational data of a 20-acre restoration project on an urban university campus. Undergraduate poster presentation, Texas Chapter of The Society for Ecological Restoration Annual Meeting, Houston, TX.

Lawton, C., McGee, M., Kharrat, Z., and Baxter-Slye, JL. (2024). Islands in a Sea of Urbanization – Creating Effective Protocols for the Reintroduction of Plant Natives in the City of Denton Using Reduced Mowing Plots. Undergraduate poster presentation, Texas Chapter of The Society for Ecological Restoration Annual Meeting, Houston, TX.

Meng, F. (2024) Genomic Profiling of the Histone Variant H2A.Z during Embryonic Development. Invited talk at the International Conference on Intelligent Biology and Medicine (ICIBM 2024), Houston, TX.

Mittal, I., Alam, S., Berg, K., Dong, Y., Trick, H.N., Kolomiets, M., Scofield, S., and Shah, J. Dual RNA-sequencing to decipher the molecular mechanism underlying the *Lpx*3-knockdown-conferred resistance against *Fusarium graminearum*. Poster presented by Isha Mittal. UNT Research Day, October 4, 2024.

Mittal, I., Alam, S., Shulaev, E., Berg, K., Dong, Y., Trick, H.N., Kolomiets, M., Scofield, S., Shah, J. Differential transcriptomics identifies the key wheat genes and in planta-expressed fungal genes associated with *Lpx3*-conferred resistance to Fusarium Head Blight**.** Poster presented by Isha Mittal. 2024 National Fusarium Head Blight Forum, Austin, Texas; December 8-10, 2024.

Poe, B., Copeland, B., McAdoo, C., and Baxter-Slye, JL. (2024). Native Bee Support Initiative: An Assessment and Native Pollinator Support Plan for an Urban Campus. Undergraduate poster presentation, Texas Chapter of The Society for Ecological Restoration Annual Meeting, Houston, TX. ***Best Undergraduate Poster Award**

Reinart, D., Nering, C., Lawton, C., Thompson, M., Belcher, B., Crawford, K., and Baxter-Slye, JL. (2024). Using Arbuscular Mycorrhizal Fungi (AMF) to Improve Establishment of Prairie Grasses in an Urban Reconstructed Prairie Habitat. Undergraduate poster presentation, Texas Chapter of The Society for Ecological Restoration Annual Meeting, Houston, TX. ***Best Undergraduate Poster Award**

Undergraduate Poster Award Winners at Texas Chapter of The Society for Ecological Restoration Annual Meeting

Rhodes, R., Dilley, J., Sweatt, I., Duvall, J., Morris, E., Balderas, I., Richter, B., Thomas, S., and Baxter-Slye, JL. (2024). Introducing the 'Mean Green Tree Team': Active Canopy Assessment of the University of North Texas Campus and Local DFW Partners. Graduate and undergraduate poster presentation, Texas Chapter of The Society for Ecological Restoration Annual Meeting, Houston, TX.

Rutherford, M., Nering, C., Peters, N., Koehler, H., Barker, G., and Baxter-Slye, JL. (2024). Native your Urban: Blue-green Infrastructure Using Native Texas Prairie and Aquatic Plants at the City of Corinth Community Park in the Sandy Eastern Cross Timbers Ecoregion. Graduate and undergraduate poster presentation, Texas Chapter of The Society for Ecological Restoration Annual Meeting, Houston, TX.

Sweatt, I., Davis, M., Giron, A., Banks, B., and Baxter-Slye, JL. (2024). Introducing the University of North Texas Vulture Cam!: live-stream camera monitoring of a long-term Black Vulture (*Coragyps atratus*) nesting site at the Discovery Park complex. Undergraduate poster presentation, Texas Chapter of The Society for Ecological Restoration Annual Meeting, Houston, TX.

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