

# The Natural Inquirer



FORT HAYS STATE UNIVERSITY DEPARTMENT OF BIOLOGICAL SCIENCES

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Spring Semester, 2026

Congratulations to three of our seniors who were accepted to  
KU Med for Fall 2026!



**Colson Browning** (left), **Micah Burk** (center), and **Grace Shiew** (right) will all be joining the Salina campus of the University of Kansas Medical Center this fall.

See page 5 for several other Biology students accepted into professional programs this year. We are very proud of all of you!!

*Goodbye!*



Sternberg Zoology Collections Manager **Dr. Jackson Roberts** has accepted the position of head herpetology curator at the Virginia Museum of Natural History.

Congratulations Jackson, and best of luck in your future endeavors!!

**Inside this issue:**

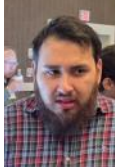
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## Meetings and Presentations

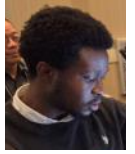
### 24th annual Kansas IDeA Network of Biomedical Research Excellence (K-INBRE) Symposium, January 16-18, Overland Park, KS.



**Acquah, L.**, and M. Gruenstaeudl. Genetic characterization and genome analysis of bloom-forming cyanobacteria in western Kansas.



**Antwi, Y. A.**, A. Kusi-Appiah, C. Harmon, M. Fischer, J. Arellanes, and C. Carvalho. Exploring the link between soil microbes, land use, and antibiotic resistance through a One Health lens.



**Bohorquez, D.**, B. Williams, E. McCullough, and M. Gruenstaeudl. CCUSTR: A phylogenetic program for automated clade splicing.

Coykendall, A. K., and L. E. Patrick. Big browns all the way down: DNA identification of bat species roosting at Fort Leavenworth.



**Frans, H.**, and T. Phelps-Durr. Impact of one nucleotide on organ enumeration and phyllotaxy in *Arabidopsis thaliana* (presentation; **Award of Excellence winner**).

**Hamitouche, T.**, and M. Gruenstaeudl. Scalable extraction, alignment, and annotation validation for thousands of plastid genomes through a novel bioinformatic software.



Harmon, C., **E. Colson**, Y. Antwi, B. Pangeni, and C. Carvalho. Detection of beta-lactamase antibiotic resistance genes in rural Kansas soils across agricultural land-use types.

Magar, B. T., and M. Gruenstaeudl. Assessment of GenBank-archived human mitochondrial genomes through modern quality filtering and reassembly.

**Peterson, M.**, and E. T. Gillock. Analysis of essential oils inhibiting growth of gram-positive, gram-negative, and fungal pathogens.



**Pfaff, C.**, and E. T. Gillock. A *Bacillus pumilus* isolate with promising antimycobacterial properties.

Steffan, B., L. Acquah, and M. Gruenstaeudl. Using de novo hybrid genome assembly approaches to characterize a new cyanobacterial strain in western Kansas (presentation).

(L-R): Hazel Frans, Dr. Tara Phelps-Durr, Dr. Claudia Carvalho, and Maggie Peterson relax and socialize at the K-INBRE meeting in January.



## Meetings and Presentations, continued:

### The Joint Annual Meeting of the Kansas Academy of Science and Central States Entomological Society, April 10th & 11th, Lawrence, KS.



**Fox, I.S.**, and W. J. Stark. The results of a three-summer survey of the insect fauna of the Fort Leavenworth Military Installation (presentation).

**Geyer, P.**, J. Roemer, and L. Patrick. Buzzes over burrows: Bats and black-tailed prairie dogs in western Kansas (presentation).



**Knoll, L. C.**, and L. E. Patrick. Population estimates and variables altering whitetail deer movement and activity in Fort Leavenworth (poster).

Patrick, L.E. Build a mammal battles: Beyond exams in Mammalogy (presentation).

Winters, H., J. Eggleston, J. Sytsma, A. Ricker, M. Galliard, A. McGuire, E. Collinsworth, and L. Johnson. Intraspecific climate adaptation and response to variations in precipitation in a dominant prairie grass (poster).

### The 22nd Annual John Heinrichs Scholarly and Creative Activity Days (SACAD), May 1, 2026, Hays, KS.



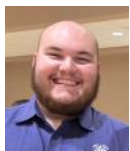
**Frans, H.**, and T. Phelps-Durr. Impact of one nucleotide on organ enumeration and phyllotaxy in *Arabidopsis thaliana*.

Phelps-Durr, T., H. Frans, and **M. Wang**. Verifying mutations in *Arabidopsis thaliana* gene APET-ALA3.



**Pfaff, C.**, and E. T. Gillock. A *Bacillus pumilus* isolate with promising antimycobacterial properties.

**She, X.**, and I. Adefuye. APOE as a potential link in glioblastoma therapeutic resistance.



**Smith, Z.**, S. Guzman-Duran, and W. J. Stark. An overview of herpetofauna surveys at Fort Leavenworth Military Reservation.

**Wang, Y.**, and L. Acquah. Maintaining and axenizing live cyanobacterial cultures for bacterial genome sequencing.



### Biennial Conference on Undergraduate Education in Natural Resources, May 3 - 5, 2026, Michigan Technological University, Houghton, MI.

Channell, R., Responding to challenges to field biology education: A work in progress.

Galliard, M. and Patrick, L., Building a better Biology 2 using CUREs.

Patrick, L., Embedding networked CUREs into mammalogy lab: student gains and lessons learned.

## Meetings and Presentations, continued:

### The KU Center for Genomics 5th annual research symposium, May 8th, 2026, Lawrence, KS.

Acquah, L. Genomic characterization of a novel bloom-forming cyanobacterial species from western Kansas (presentation).

Magar, B.T. Assessing the quality of human mitochondrial genomes archived in GenBank using modern reassemblies (presentation).

Members of Dr. Gruenstaeudl's lab at the KUCG 5th annual research symposium (L-R: Bryce Steffan, Buddha Thapa Magar, Louisa Acquah, Dr. Michael Gruenstaeudl).



### Kansas Natural Resource Conference, February 5-6, 2026, Manhattan, KS.

Several students and faculty, and **over 60 Biology alumni (!)** gathered for an evening of mentorship, career advice, and old professor stories. Raffle prizes featured signed fish prints by FHSU alum Joe Tomelleri.



## Publications

Varner J., Yahnke C.J., Duggan J.M., Lanier H.C., Dizney L., **Patrick L.E.**, Connors P.K., Flaherty E.A., Klure D.M., Sartini C. 2025. When Squirrels Fly: A Networked CURE for Assessing Flight Initiation Distances. CourseSource 12. <https://doi.org/10.24918/cs.2025.16>.



## Student News:



Congratulations to the following students who were accepted into professional programs:

**Louisa Acquah** (M.S. 2026) has been accepted to the Ph.D. program at the University of Kansas.

**Colson Browning** (B.S. 2026) has been accepted to the University of Kansas Medical School in Salina KS.

**Micah Burk** (B.S. 2026) has been accepted to the University of Kansas Medical School in Salina KS.

**Hazel Frans** (B.S. 2026) has been accepted to and will attend the Ph.D. program at Washington University in St. Louis, MO. Hazel was also accepted to Ph.D. programs at KU and University of Missouri.

**Brandon Kennemer** (M.S. 2026) has been accepted to the Ph.D. program in Biochemistry and Molecular Biophysics at Kansas State University.

**Hannah Nimmo** (B.S. 2025) has been accepted to the Ph.D. program in Biomedical Sciences at the University of Oklahoma Health Sciences Center.

**Maggie Peterson** (B.S. 2026) has been accepted to the Biology Master's program at Wichita State University.

**Peyton Shepard** (B.S. 2026) has been accepted into the University of Colorado Dental School.

**Grace Shiew** (B.S. 2026) has been accepted into the University of Kansas Medical School in Salina KS.



Congratulations to these students who completed their M.S. degrees this semester!

**Louisa Acquah**

**Yaw Antwi**

**Patrick Geyer**

**Brandon Kennemer**

(Patrick has accepted a position as a Field Research Technician for the National Ecological Observatory Network (NEON) in Manhattan, KS).

# Awards!

At the University convocation in January, **Dr. Michael Gruenstaeudl** received the University Outstanding Research and Scholarly Activity Award for 2025.



Dr. Gruenstaeudl with FHSU Provost  
Dr. Jill Arensdorf.



**Dr. Lori Patrick** was selected as one of five finalists for the Writing Across the Curriculum faculty writing mentor of the year.

**Emily Redding** received the 2026 Outstanding Graduate Teaching Assistant award.



**Cody Pfaff** was selected as one of the winners of the 2026 FHSU Outstanding Undergraduate Research Awards.

Cody stated, "Winning the Outstanding Undergraduate Research award from Fort Hays State University is a tremendous honor. I am deeply grateful for the unwavering support and guidance of my department and faculty mentors, especially Dr. Eric Gillock and Dr. Margaret Braasch-Turi. This award motivates me as I pursue my master's in microbiology at FHSU, and I am excited for the journey ahead."



*Jadynn Doyle* completed a study abroad program in Iceland.

# This and that...



*Dr. Satomi Kohno's* Eco-toxicology class took a field trip to the City of Hays water treatment plant.



Some of our graduate students spent their spring break volunteering with the Salvation Army in Idaho.

2nd from right: *Abdul Uthman*; 4th from right: *Bishnu Pangeni*

In April, Instructor *Demetria Sanchez* (B.S. 2022, M.S. 2025) visited Hays High School to give a presentation about college and career opportunities to their JAG-K (Jobs for America's Graduates-Kansas) club.



*Dr. Lori Patrick* co-organized the first annual Meet a Scientist Day at Sternberg Museum on Saturday, March 7th. The goal of the event was to raise awareness in the community about what scientists do and how their work is important.

# Field trip time!

Twelve graduate and undergraduate students enrolled in **Migratory Birds** (Biol 470) traveled with Dr. Bill Stark to the Rowe Sanctuary on the Platt River Valley, NE, to observe thousands of Sandhill Cranes on their migratory journey. Students also had the chance to participate in mist netting and bird banding, and to witness greater prairie chicken lekking behavior. Students interacted with colleagues from Pittsburg State University, the University of Nebraska-Kearney, and the University of Tulsa.



## 2026 Herpetology Field Trip

A joint trip with the Kansas Herpetological Society and led by Dr. Bill Stark and Dr. Jackson Roberts



# Herpetology Field Trip, continued:



# Herpetology Field Trip, continued:





## KWEC welcomes new education specialist



In March, the Kansas Wetlands Education Center welcomed new education specialist **Jenn Rader** (B.S. 2008). Her responsibilities include creating environmental education outreach materials, caring for the KWEC wildflower garden, and overseeing care of the animal ambassadors at KWEC. After earning her degree in Biology from FHSU in 2008, Jenn spent nearly two decades as a naturalist and environmental educator in several regions of Kansas before coming to KWEC.



## Spring sightings at KWEC!



600 Park Street  
Hays, KS 67601  
Phone: 785-628-4214

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