

The Natural Inquirer



FORT HAYS STATE UNIVERSITY DEPARTMENT OF BIOLOGICAL SCIENCES

Volume 19, Issue 2

Spring Semester, 2021

Biology Sophomore named Goldwater Scholar

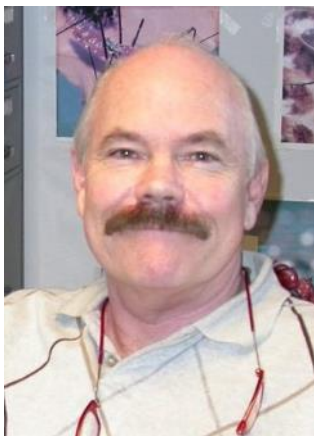
Brynn Wooten, a sophomore double-majoring in Biology and Geosciences, has been named a 2021 Barry Goldwater Scholar. This scholarship will fund her final two years of undergraduate study at FHSU. Wooten is the first FHSU student to receive this award. She plans to pursue a career studying paleoecology and hopes to teach at the university level.

The Goldwater Scholarship Program is one of the oldest and most prestigious national scholarships in the natural sciences, engineering and mathematics in the United States. The program seeks to identify and support college sophomores and juniors who show exceptional promise of becoming this Nation's next generation of research leaders in these fields. - *courtesy FHSU University Relations*



Biology Professor Dr. Rich Packauskas retires

Rich began teaching in the Biology department in the fall of 1995. He taught Entomology, Parasitology, Principles of Biology, Human Biology, Zoology, and Systematic Zoology. He served as a faculty advisor to Biology-Natural Resource students, and as curator of invertebrates at the Sternberg Museum.



In 2010, Rich and Biology student Ryan Shofner discovered and named a new species of jumping bristletail (*Hypomachilodes forthaysi*). Rich received the FHSU Outstanding Research Award in 2010, and was named the President's Distinguished Scholar in 2012.

Inside this issue:

Presentations	2-3	Publications	3
Grad student news	5	KWEC	7

Meetings and Presentations

16th Annual **John Heinrichs Scholarly and Creative Activities Day** (virtual), April 12-16, 2021.

Carvalho, C. M. Knowledge and perceptions of antibiotic resistance stewardship among pre-health and agriculture students at Fort Hays State University. **1st place, faculty empirical poster.**

Dr. Carvalho was also promoted to lecturer this semester. Congratulations Claudia!

153rd Annual Meeting of **Kansas Academy of Science** (virtual), April 10th, 2021.

Wertz, B., M. Moyer, D. Kostner, T. White, O. Abernathy, and Y. Kobayashi. Effects of food intake and food exposure on expression of two dopamine receptors (DR), Tyrosine hydroxylase (TYRH), Aromatic L-amino acid decarboxylase (AAAD), and catechol-O-methyltransferase (COMTA) mRNA in the brain of channel catfish (oral presentation).

Fay, S. and B. Maricle. Effects of soil microbial additives on growth in pea plants (poster).

Krueger, C. and B. Maricle. Effects of sulfide on growth and chlorophyll in wheat and corn (poster).

Yutzy, A., B. Wertz, D. Kostner, and Y. Kobayashi. Relationship between transport protein particle complex 11 (TRAPPC11) messenger RNA (mRNA) expression and food intake in channel catfish (poster).

Alexander, J., C. Schmidt, M. Noland, and M. Greer. Preliminary assessment of the aquatic turtle community at the Sternberg Natural Area (poster).

19th Annual **Kansas IDeA Network of Biomedical Research Excellence (K-INBRE)** Annual Symposium (virtual), January 14-15, 2021.

Elliott, J. E., N. C. Quispe, K. D. Compton, Y. Kobayashi, and B. R. Maricle. Enzymatic tolerance to sulfide, lactic acid, and ethanol in corn and catfish tissues.

Drees, R., and M. J. Greer. Results of soil nutrient additions in restoring magnesium concentration to common crop species. **Runner-up Undergraduate Poster.**

Kansas Natural Resource Conference (virtual), January 28, 2021.

Million, C., and L. Patrick. Are there dietary differences between male and female cave myotis in South-Central Kansas?

Meetings and Presentations, continued

Sielaff, M., C. Million, L. Duncan, and L. Patrick. Documenting the genetic diversity of Kansas bats.

American Association for the Advancement of Science (AAAS) Annual Meeting (virtual), February 8-11, 2021.

Elliott, J. E., N. C. Quispe, K. D. Compton, Y. Kobayashi, and B. R. Maricle. Enzymatic tolerance to sulfide, lactic acid, and ethanol in corn and catfish tissues.

Emporia State University Biology Seminar Series, March 31, 2021.

Ambardar, M. Adventures in bird parenting: Interactions among behavior, physiology, and fitness related traits (Invited seminar).

Publications

Peyer, S. M., B. R. Maricle, and D. R. Young. 2021. Effect of sulfide and the role of root mass on metabolic fluxes in the seagrass *Zostera marina*. *Environmental and Experimental Botany* 180:104267.

Queiroz, A. R. and B. R. Maricle. 2021. Effects of low light on development of *Ageratina altissima* and *Rudbeckia laciniata* (Asteraceae), species of the tallgrass prairie. *Transactions of the Kansas Academy of Science* 123:387-401.

Patrick, L. E., H. A. Barron, J. C. Brown, and S. Cotner. 2021. Building excellence in scientific teaching: How important is the evidence for evidence-based teaching when training STEM TAs? *Journal of Microbial Biology Education* 22(1) doi: 10.1128/jmbe.v22i1.2473.

Engel, R. P., and B. R. Maricle. 2021. Pollen sources in honey bee (*Apis mellifera*) diet in Ellis County, Kansas. *Transactions of the Kansas Academy of Science* 124(1-2): 1-23.

Kriss, T. J., and B. R. Maricle. 2021. Greening rates and photosynthetic development of etiolated leaves in four crop species. *Transactions of the Kansas Academy of Science* 124(1-2): 89-97.

Congratulations!



Bryant Karlin (B.S. 2020) has been accepted into Kansas State University's College of Veterinary Medicine, in Manhattan, KS. He will start in the fall of 2021.



Melissa Dible (M.S., 2021) accepted a fellowship position as a Covid-19 lab associate with the Association of Public Health Laboratories – Centers for Disease Control (APHL-CDC) in South Charleston, WV. Melissa also plans to get her medical technologist certification through the program.



Jorja Elliott (B.S., 2021) has been accepted into the Biology Ph.D. program at Texas A&M University in College Station, TX. She was a 2019 KAMS graduate, and worked in Dr. Maricle's lab researching respiration enzymes in plant roots. Jorja also worked at the Heartland Plant Innovations research facility in Hays.



Kelsey Jones (B.S., 2021) has been accepted into the School of Medical Laboratory Science program at North Kansas City Hospital. This competitive MLS program only accepts eight students per year.



Travis Riley (M.S., 2021) accepted a position with the Kansas Department of Wildlife, Parks, & Tourism as the Clinton District Fisheries Biologist.



Jacob Alexander (B.S. 2021) was selected as a Noyce Teacher Leader Scholar. Jacob has worked as a camp counselor at the Sternberg Museum for many years. He will begin pursuing a Secondary Education degree starting this summer.

Graduate Student News:

Congratulations to the following graduate students, who completed their master's degrees this semester:

Melissa Dible

Spencer McCue

Paul Hess

Sara Nansel-Lantz

Nathaniel Higdon

Travis Riley

Brenna Lawless

Blaine Wertz

Alumni news:

Diedre Kramer (M.S., 2019), Pratt Education Center Director, was featured in an article in the Pratt Tribune:

<https://www.pratttribune.com/story/news/2021/02/03/explore-major-kansas-waterways-online-and-person-pratt-education-center/4378939001/>

The newly renovated Education Center features 12 large aquariums that exhibit the wide variety of aquatic life found in Kansas rivers, streams, and lakes.



Dr. Brian Maricle has accepted a new position at Saginaw Valley State University, in Saginaw, MI. Brian began teaching in the Biology department in 2006. In his time here, he published 40 peer-reviewed scientific manuscripts, and mentored 16 graduate students and 45 undergrads. Many of those students went on to earn advanced degrees at other universities and professional schools. Brian taught Botany, Plant Anatomy, Plant Physiology, Environmental Physiology, Dendrology, Principles of Biology, and Human Biology.



Dr. Mitch Greer has accepted a new position at Southern Utah University in Cedar City, UT, as the Rangeland Management Specialist. Mitch began teaching in the Biology department in 2014. He taught Ecology, Taxonomy of Flowering Plants, Human Dimensions in Wildlife, Natural Resource Policy, Rangeland Restoration and Conservation, Contemporary Rangeland Issues, Rangeland Plant Ecology, Rangeland Management, Wildlife Management, Principles of Biology Lab, and Humans and the Environment. Mitch's wife, **Morgan Noland**, started in 2016 as an adjunct, and a research specialist. She taught Lab Experiences in Biology, Humans and the Environment, Medical Terminology, Global Environmental Issues, and co-taught UAS Applications II. Morgan will continue on as a FHSU adjunct.



2021 FHSU Lighthouse award and Pilot award winners



Blaine Wertz

Blaine Wertz (B.S. 2019, M.S. 2021) received the 2021 Lighthouse Award as this year's outstanding graduate student. **Dr. Eric Gillock**, professor of biological sciences, received the 2021 Pilot Award as this year's outstanding faculty member. The winners were announced at the virtual Spring Convocation Awards by Dr. Jill Arensdorf, provost and vice president for academic affairs.

"Faculty describe Blaine as a student with high academic standards and one who actively engages in the learning process – eager to understand the materials presented. They also comment on his pleasantness and genuine concern for others. Blaine uses his talents to provide support as a graduate teaching assistant and also spends time mentoring undergraduate students in the research laboratory," Arensdorf said. The Lighthouse Award honors an outstanding student who is completing graduate studies. The award, begun by the Alumni Association in 2018, was named after "Lighthouse on the Plains," a book documenting the history of FHSU by the late Dr. James Forsythe, former dean of the Graduate School and FHSU historian.

Arensdorf then announced this year's recipient of the Pilot Award, Dr. Eric Gillock: "One nominating letter described Dr. Gillock as, 'a shining example of all that I love about Fort Hays State University. Teaching, curiosity, community, and family are his life, and this shows through in his every act. He takes care to ensure his students understand the material, checks up on them if they fall behind, and believes deeply in their ability to prosper. He's highly proficient in what he teaches and is able to convey ideas for any level of understanding.'" The Pilot Award, begun in 1974, is awarded on the basis of classroom excellence, ongoing research, and service activities. This year, 35 faculty members were nominated for the Pilot Award by graduating seniors.



Dr. Eric Gillock

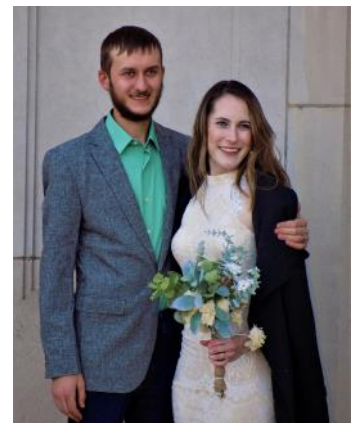


Dr. Lori Patrick's Ecology lab conducted small mammal mark-recapture surveys to estimate mammal population size. This is part of a larger project investigating small mammal behavioral interactions.



Congratulations

to Travis Riley and Brenna Lawless,
who were married in January, 2021!



Watering KWECC's pollinator garden will be more efficient and less time consuming this summer, thanks to the Barton County Conservation District. Volunteers installed a drip irrigation system in the middle section of the garden, after receiving hands-on instruction from BCCD District Manager Veronica Coons. Anyone wanting to help prepare and plant the garden this summer can call KWECC at 877-234-9268 or email pam.martin@ks.gov.



A variety of birds visited KWECC in the past few weeks. Photos courtesy of KWECC's Facebook page (<https://www.facebook.com/wetlandscenter>)

American avocets and white pelicans



Wilson's phalaropes



Marbled godwits and Northern shovelers



Killdeer

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

We're on the Web!
www.fhsu.edu/biology



We're on Facebook!

Biological Sciences
Department at Fort Hays State
University