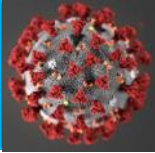


The Natural Inquirer



FORT HAYS STATE UNIVERSITY DEPARTMENT OF BIOLOGICAL SCIENCES

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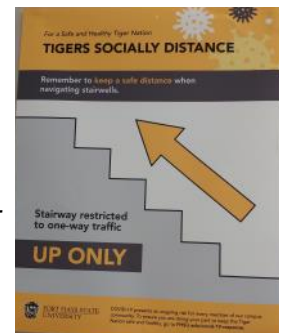
Fall Semester, 2020

Precautions taken on campus as COVID-19 pandemic continues



The Fall 2020 semester at FHSU featured several measures to protect students and faculty from the ongoing COVID-19 pandemic. Requirements included wearing facemasks inside campus buildings, one-way staircases and doors, and socially-distanced classrooms.

Most classrooms were limited to one-fourth their normal occupancy. In this case a “hybrid” class had some students attend lecture in person, and some via Zoom, with the students switching delivery modes every other lecture.



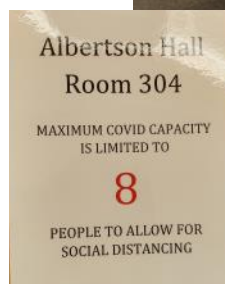
Classes that needed to be taught 100% on-campus, like some labs, were conducted in an accelerated 8-week format. The remainder of classes



were taught in a totally online format. These safety measures, along with COVID testing and quarantine when needed, helped avoid the need for another campus shutdown and switch to remote learning.

Even as U.S. COVID cases top 20,000,000, there is hope that new vaccines will slow the spread of the pandemic. Pfizer and Moderna vaccines are now

being administered to healthcare workers, with several other vaccines still in clinical trials. Source: <https://www.who.int>



Inside this issue:

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Meetings and Presentations

Ambardar, M., L. A. Watson-Divittore, C. M. Musgrove, and A. D. Hinds. Responses of house wrens to a novel object: interactions with fitness-related traits and physiology (poster). North American Ornithological Conference (virtual). August 12, 2020.

Clark, E. L., M. Ambardar, and W. J. Stark. Preliminary status report on the ferruginous hawk (*Buteo regalis*) in Kansas, USA (poster). North American Ornithological Conference (virtual). August 13, 2020.



Erica Clark flying a drone at hawk nest sites



Ethan Grennan and Erica Clark searching for hawk nests

Maricle, B. R. KAMS/AMS research on plant stressors and responses: Understanding how plants respond to their abiotic environment. Guest lecture for the KAMS Junior Seminar, Fort Hays State University. November 2020.

Maricle, B. R. Plant stressors and responses: Themes from coastal marshes and the mixed-grass prairie. Invited presentation at the Kansas State University Plant Pathology Seminar Series, Manhattan, KS, October 2020.

Patrick, L. What is the BEST Way to Train Teaching Assistants in STEM? Invited seminar at Kansas State University, Division of Biology seminar series. November, 2020.

Publications

Galliard, M., S. Sabates, H. Tetreault, A. DeLaCruz, J. Bryant, J. Alsdurf, M. Knapp, N. M. Bello, S. G. Baer, B. R. Maricle, D. J. Gibson, J. Poland, P. St. Amand, N. Unruh, O. Parrish, and L. Johnson. 2020. Adaptive genetic potential and plasticity of trait variation in the foundation prairie grass *Andropogon gerardii* across the US Great Plains' climate gradient: Implications for climate change and restoration. *Evolutionary Applications* 13:2333-2356.

Patrick, L. E., and L. Ruedas. 2020. Editor's Choice. *Journal of Mammalogy* 101(4): 926-929.

Publications, continued

Peyer, S. M., B. R. Maricle, and D. R. Young. 2020. 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. 2020. 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.

Welcome to our new instructors who began this semester!



Mr. Matt Galliard

Completing his PhD at Kansas State University
teaching Laboratory Experiences in Biology, and serving as advisor for Biology/
Secondary Education majors



Dr. David Tarailo

PhD, University of Iowa
teaching A&P, Human Anatomy, Human Biology, and Medical Terminology.



Dr. Emily Weber

PhD, University of Rochester
teaching Principles of Biology lecture and lab, and Human Biology.

Congratulations

Dr. Claudia Carvalho (B.S. 2007, M.S. 2009)
completed her PhD in Public Health with a concentration in Community Health and Epidemiology from Walden University.

Dr. Carvalho's dissertation title: "Knowledge and perceptions of antibiotic resistance stewardship among pre-health and agriculture students". Dr. Carvalho was also promoted this semester from instructor to lecturer in the Biology department.



Congratulations!

These students have been accepted to professional schools for fall 2020:

Crystal Bliss was accepted to the Doctor of Physical Therapy program at University of Kansas Medical Center.



Marisa Carmen (B.S., 2020) was accepted to the University of Kansas Medical School.

Kalyn Compton (B.S., 2021) was accepted to the University of Kansas Medical School.

Payden Shapland (B.S., 2020) was accepted to the Physician's Assistant program at Missouri State University.

Nathan Smith (B.S., 2020) accepted into the Master of Science program in the K-State Plant Pathology department.

Blaine Wertz (M.S., 2021) was accepted to the University of Kansas Medical School.

Graduate Student News:

Students that completed their masters degrees:

Holly Anderson

Alonso Barragan-Martinez (B.S., 2018)

Ashley Durr (B.S., 2018): "The effects of prescribed burning and microhabitat type on ant functional groups and a survey of ants (Formicidae) in western Kansas".

Ryan Engel (B.S., 2018) "The influence of land use on the pollen diet of honey bee (*Apis mellifera*) colonies in Ellis County, Kansas".

Katya Frank

Jamie Oriez: "Influence of landscape factors on black-tailed prairie dog (*Cynomys ludovicianus*) colony persistence in northwest Kansas".

Drew Zimmerman (B.S., 2016)

Passed comprehensive oral exam:

Sara Nansel-Lantz (B.S., 2018)

Dr. Elmer Finck, professor emeritus and former chair of the Department of Biological Sciences, received the 2020 Hartley H. T. Jackson Award for long and outstanding service to the American Society of Mammalogists. The ASM presents three awards annually, for teaching, research, and service. The service award was established in 1977 “to recognize members who have given long and outstanding service” to the society.

Dr. Finck became a member of ASM in 1978, and has attended nearly all annual meetings since 1983. He has served on the following ASM committees: Conservation Awards (chair), Education and Graduate Student (chair), Mammal Images Library (served as business manager), membership (chair), and Program. He has served as co-host of three annual meetings, and has assisted with on-site registration for the past ten years.

For more information about ASM and the Hartley H. T. Jackson Award, go to:

<https://www.mammalogy.org/committees/jackson-award>. Congratulations Dr. Finck!

Alumni news:

Bliss Betzen completed her M.S. degree in the Department of Plant Pathology at Kansas State University. Bliss was formerly a KAMS student at FHSU, and a member of the FHSU Botanical Research Group from 2011-2013.



Dr. Medhavi Ambaradar’s 2020 research group

(l-r: Dr. Ambaradar, Chloe Musgrove (B.S., 2020), Leslie Watson-Divittore (grad student, Psychology dept.), and Annie Hinds (B.S., 2020)).



Measuring and marking house wrens



Kansas Wetlands Education Center news

KWEC has created a virtual tour with 360 images, drone footage, educational videos, interviews with Cheyenne Bottoms partners, and interactive games. Explore Cheyenne Bottoms from the comfort of your home by visiting



<https://wetlandscenter.fhsu.edu/>

KWEC is part of a nationwide collaboration researching the effectiveness of virtual environmental education programs. Grade 6-12 teachers that would like to have their students complete the virtual tour and take a survey can visit the KWEC website for more information.

KWEC hosted its annual Perseid meteor shower watch party on August 14th from 8:30 to 10:30 p.m. Visitors were encouraged to bring lawn chairs or blankets to enjoy the night sky. A planetarium show featured the constellations and the mythology behind them. Meteorite specimens were on display from the FHSU Sternberg Museum of Natural History.

KWEC did not hold its annual butterfly festival this year due to Covid-19. However it has still been an amazing monarch migration year at KWEC, with monarch numbers building each day since Sept. 14. The goldenrod has been full of nectaring monarchs. Each evening roost sites grew, with 1,400 counted Sept. 17 and 2,500 on Sept. 18.

Enjoy the wonder of the monarch migration by visiting <https://youtu.be/QWjGOyijmwE> (look for the tagged monarch among the roosting monarchs!)

Source: <https://www.facebook.com/wetlandscenter>



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**Biological Sciences
Department at Fort Hays State
University**