

# The Natural Inquirer

FORT HAYS STATE UNIVERSITY DEPARTMENT OF BIOLOGICAL SCIENCES



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Fall Semester, 2015



Dr. Brian Maricle

Dr. Maricle was also selected as the Outstanding Academic Advisor for 2015 by the National Academic Advising Association (NACADA).

## Faculty win University awards for advising and scholarly activity

Two biology faculty members were selected for fall 2015 faculty awards. The awards were presented during a surprise classroom visit by President Martin, Dean Farley, and Biology chair Dr. Rob Channel.

**Mark Eberle** was presented with the Outstanding Scholarly Activity award, and **Brian Maricle** was presented with the Outstanding Academic Advisor award. Dr. Maricle was also selected



Mr. Mark Eberle

**Jason Black** (M.S. '14) was recently named manager of the 4,455 acre McPherson County Wetlands, north of Hutchinson. The wetlands are owned by the KS Department of Wildlife and Parks. Black will also supervise management at nearby Maxwell Wildlife Refuge. Originally from Texas, Black graduated from Emporia State University in 2007 with a degree in environmental biology, and completed his masters degree in wildlife biology from FHSU in in 2014. He previously worked for Wildlife and Parks near Cheyenne Bottoms, and worked for a year at the Kansas Wetlands Education Center.



Photo from the Wichita Eagle

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## Meetings and Presentations

### Central Plains Society of Mammalogists annual meeting, Maryville, MO, October 9-11.

Taylor Rasmussen presented "The status of the Franklin's ground squirrel (*Poliocitellus franklinii*) in north central Kansas" by T. Rasmussen and E. J. Finck.

Angelica Sprague presented "Identification and characterization of northern long-eared bat (*Myotis septentrionalis*) hibernacula in Kansas" by A. V. Sprague, C. J. Schmidt, and E. J. Finck.

Angelica was also elected to the CPSM Executive board as secretary of a co-secretary/treasurer position.

Holly Wilson presented "Relationship between temporal partitioning and diet of six bat species in Kansas" (poster) by H. Wilson, C. J. Schmidt, and E. J. Finck.

### Kansas Herpetological Society annual meeting, FHSU, Hays, KS, November 6-8.

<http://www.cnah.org/khs/meetings.aspx>

Kasandra Brown presented "This is for the Birds: Developing Monitoring Protocols for Multiple Species Groups" by K. A. Brown, J. T. Seim, R. Laubhan, and W. Stark.



Anuja Paudyal, Kaitlin Moore, and Wanda Jimenez attended the **Great Plains Infectious Disease Meeting** at the KU School of Pharmacy, Lawrence, KS, Nov. 6-7.

Congratulations to the following students who were awarded research grants from the Kansas Academy of Science:

Urban, A.D. and B.R. Maricle. Effect of lactic acid on enzymes of respiration in catfish tissue. KAS Student Research Grant, \$1000.

Tamang, T.M. and B.R. Maricle. Determination of evolutionary history of big bluestem ecotypes through chloroplast DNA analysis. KAS Student Research Grant, \$1500.

## Undergraduate Research

**Alexyss Leiker** (L), a senior in Biology from Hays, and **Paige Evans** (R), a senior in Biology from Concordia, have been researching the causes of diabetes and obesity in humans by examining the genes of channel catfish. Working for Dr. Yasuhiro Kobayashi, Evans studied how food intake influences the expression of a protein important for metabolism, and Leiker studied how insulin receptors influenced the development of obesity in catfish. Catfish can accumulate fat in

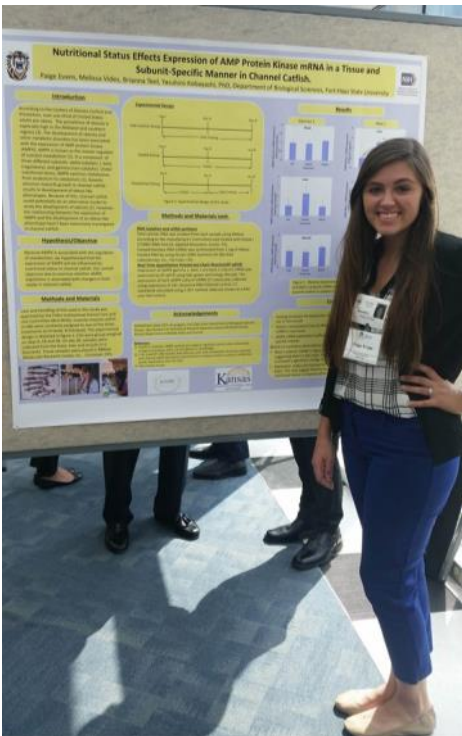


their bellies, and thus can be used as a model organism for studying human obesity.

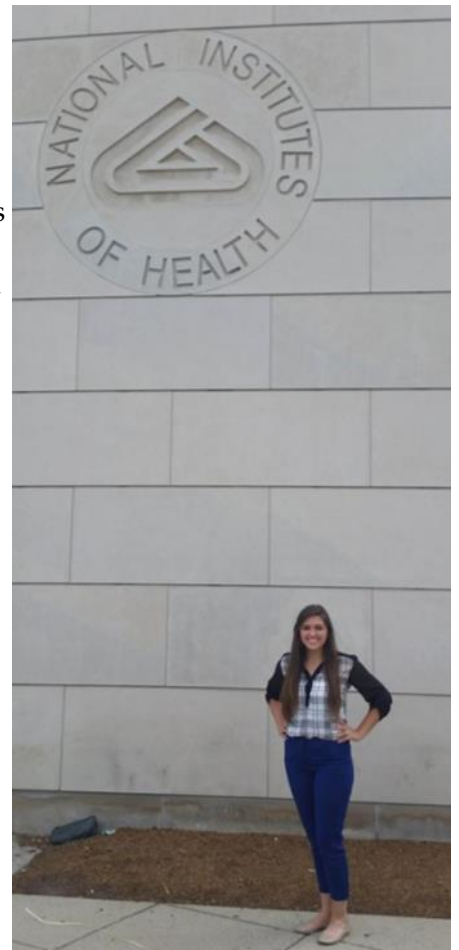


The physiology research Dr. Kobayashi's students conduct is supported by scholarships and grants from K-INBRE (Kansas IDeA Network for Biomedical Research Excellence). "Research is good experience, beyond what we teach in the classroom," says Kobayashi. "Our students have the opportunity to travel and present their research at international conferences where they are exposed to people from other universities and countries." Evans and Leiker will present their research in April

2016 at the Experimental Biology meeting in San Diego, CA.



Evans presented her research results at the NIH (National Institutes of Health)/NIDDK (The National Institute of Diabetes and Digestive and Kidney Diseases) STEP-UP conference at the NIH Headquarters in Bethesda, MD, on August 2-6, 2015.



# Publications



Maricle, B.R., K.L. Caudle, and P.B. Adler. 2015. Influence of water availability on photosynthesis, water potential, leaf  $\delta^{13}\text{C}$ , and phenology in dominant C4 grasses in Kansas, USA. *Transactions of the Kansas Academy of Science* 118:173-193.

Mendola, M.L., S.G. Baer, L.C. Johnson, and B.R. Maricle. 2015. The role of ecotypic variation and the environment on biomass and nitrogen in a dominant prairie grass. *Ecology* 96:2433-2445.

Johnson, L.C., J.T. Olsen, H.M. Tetreault, A. DeLaCruz, J. Bryant, T.J. Morgan, M. Knapp, N.M. Bello, S.G. Baer, and B.R. Maricle. 2015. Intraspecific variation of a dominant grass and local adaptation in reciprocal garden communities along a U.S. Great Plains precipitation gradient: Implications for response to grassland restoration with climate change. *Evolutionary Applications* 8:705-723.

Caudle, K.L. and B.R. Maricle. 2015. Physiological and ecological effects of spilled oil on inland salt marsh communities: a mesocosm study. *Wetlands* 35:501-507.



## *Entomology/Range Management field trip, September 12, 2015*



Asst. Professor **Mitch Greer** leads a group of Range Management students



*Congratulations to these graduate students for completing their master's degrees this semester!*



**Brandon Calderon** (“Evaluating the Effect of Water Supplementation on Pheasant and Mesocarnivore Occupancy in Western Kansas”). Brandon currently teaches General Biology, Advanced Biology, Biomedical Innovations, and Anatomy & Physiology at Remington High School, where he is also head coach for the school’s Scholars’ Bowl and Wrestling teams.

**Kasandra Brown** (“Occupancy Modeling of Herpetofauna and Grassland Nesting Birds at Quivira National Wildlife Refuge”)



**Jeff Seim** (“Population Structure and Habitat Association of Aquatic Testudines in Quivira National Wildlife Refuge”)

**Patrice Betz** (“Effects of Environmental and Anthropogenic Factors on the Range Contraction of Bird and Mammal Species”)

*And to these graduate students who passed their oral exams this semester!*

*Brendon McCampbell, Kaitlin Moore, Tej Man Tamang, and Elizabeth Tharman*



Photos by Kasandra Brown at Quivira National Wildlife Refuge (clockwise from upper left): Yellow mud turtles (*Kinosternon flavescens*), boreal chorus frog (*Pseudacris maculata*), juvenile common snapping turtle (*Chelydra serpentina*).

## Fall 2015 GTAs getting into the Christmas spirit!



(L-R: Andrew Karlin, Sean Rogers, Josh Mead, Allison Hullinger, Tessa Brewer, Keri Caudle, Kaitlin Moore, Ariel Snyder, and Elizabeth Tharman)

### *Congratulations!!*

The following students were recently accepted into professional school:

**Adam Urban** and **Jenna Ball** were both accepted into the KU Medical Center's Scholars in Rural Health Program. This assures them a spot in the incoming class at KUMC for Fall 2017.

**Clay Mulligan** was accepted into the KUMC Doctor of Physical Therapy Program.

**Nuvia Lemus** and **Courtney Kaba** were accepted to the University of Missouri-Kansas City School of Dentistry, and **Alexyss Leiker** was accepted to the University of Nebraska-Lincoln School of Dentistry.

**Michaela Sasse** was accepted to Southern College of Optometry in Memphis, TN.

*Way to Go!!!*

FHSU Sustainability Coordinator **Andree Brisson** was featured on the Eagle Community Television Forum with Gary Shorman, December 5, 2015.

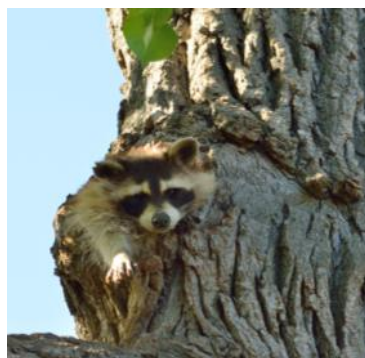


The video can be found [here](#):

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: Graduate students **Holly Wilson** and **Mitch Meyer** record  
: data on bats (photos by Angelica Sprague)  
:.....



Biology Department Bioblitz June 20, 2015. Pictures by Tej Man Tamang





FORT HAYS STATE UNIVERSITY'S  
**KANSAS WETLANDS  
EDUCATION CENTER**

## KWEC news

(Info and photos courtesy of [wetlandscenter.fhsu.edu](http://wetlandscenter.fhsu.edu) and [www.facebook.com/wetlandscenter](http://www.facebook.com/wetlandscenter))

Kansas Wetlands Education Center’s annual **Butterfly Festival** was held on Saturday, September 19, from 9 am to noon. Kids and adults participated in tagging monarch butterflies, making and sling-ing milkweed seed “bombs” into KWEC’s prairie area, and spinning silk with real silk moth cocoons. Monarch numbers seem to be rebounding locally, with many adults, caterpillars and eggs found on milkweed in Cheyenne Bottoms. Free milkweed plants, with growing instructions, were available to those who wanted to encourage monarchs to visit their yards and gar-dens.

Following the festival, a news conference and reception was held recognizing Duane Shook’s major donation to KWEC. Shook is a longtime nature enthusiast and friend of FHSU. The Duane Shook Kansas Wetlands Education Center Endowed Fund, a life income gift of \$450,000, will help support the KWEC in perpetuity. Curtis Wolf,



L-R: Curtis Wolf, FHSU Foundation president Tim Chapman, Duane Shook, Clara Shook, FHSU President Mirta M. Martin

site manager of the Wetlands Center, said, “It is through donors like Mr. Shook that we can have some security and reassurance that we will be able to perform the programs and offer the services that we want to and not what we are limited to in the future. From the FHSU and KDWPT staff at the KWEC, we say thank you to Mr. Shook for his generosity and dedicated support.”



**We’re on Facebook!**

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

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

**We’re on the Web!**  
[www.fhsu.edu/biology](http://www.fhsu.edu/biology)