

NATURAL INQUIRER

FORT HAYS STATE UNIVERSITY
Department of Biological Sciences

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ALUMNI NEWS

Dr. Gregory Wilson (MS, 1994) recently completed the requirements for the Ph.D. in zoology at Oklahoma State University and accepted a position as Assistant Professor of biology at the University of Central Oklahoma.

Guillermo Castillo (MS, 1998) recently was employed by La Asociacion para la Preservacion de las Especies Silvestres, Mexico.

Ernie Valdez (MS, 1997) has begun Ph.D. studies at the University of New Mexico while employed by the Division of Biological Resources, U. S. Geological Survey.

FACULTY HAPPENINGS

Dr. Jerry R. Choate, Professor of Biology and Director of the Sternberg Museum of Natural History, attended the 8th International Theriological Congress in Sun City, South Africa. There were mammalogists from more than 60 countries at the congress. Choate flew to Africa five days early and was treated (by Dr. Naas Rautenback, recently retired Director of the Transvaal Museum of Natural History in Pretoria, South Africa) to a photo safari in Kruger National Park.

Drs. Greg Farley and Elmer Finck accompanied several undergraduate and graduate students to the 53rd annual meeting of the Kansas Ornithological Society, held at the Great Plains Nature Center in Wichita. **Eric Hoch** (Medicine Lodge), **Trevor VanEaton** (Stockton) and **Curtis Wolf** (Hays) are all participating with the annual Fall bird-banding research – see website -- (<http://www.fhsu.edu/biology/banding/capt.htm>) and elected to expand their interest to include scientific lectures and challenging bird identification quizzes! Outstanding papers were presented by two of Farley's students and the response from the audience was appropriately positive. Several FHSU graduates were also at the meeting, including the current president of the society **John Schukman** (BS, 1973, MS, 1974) and **Tom Flowers** (BS, 1977, MS 1979), who

presented several papers on birds in the Meade Co. region.

A recent field trip in agrostology (taxonomy of grasses) to a site in Ellis County to study local living and fossil grasses resulted in the discovery of an important animal fossil - a complete lower limb bone of a three toed horse. The well preserved metatarsal was found by **Dr. Joseph Thomasson** and students in a layer of marl that reflects an ancient wetlands or pond. The limb bone has been initially identified by one of the students in the class, **Michelle Darnell**, as belonging to a horse from the genus *Protohippus*, and represents the first such fossil recovered from these strata. Michelle recently completed a master's degree in the Geosciences Department at FHSU with an emphasis on fossil horses. Students also saw and recovered a number of fossil grasses from the locality. Although the location north of Ellis had previously produced a remarkable record of fossil grasses and molluscs, the vertebrate fossil provides clear evidence of a grazing mammal at this site 7 - 10 million years ago, and combined with the fossil grasses, added to the students understanding of the origin of grasslands in our region. Michelle and Dr. Thomasson are preparing a manuscript to report this finding to the scientific community.

Dr. Bill Stark, graduate **Eric Johnson**, **Jason Luginbill**, and **David Spalsbury**, and undergraduate **Kirk Lang** attended a Lake Water Quality and Optical Remote Sensing Workshop in coordination with the Great Plains Limnology Conference at the Iowa Lakeside Laboratory on West Lake Okaboji, Iowa from September 21-22, 2001. During the two-day workshop and conference **Johnson** and **Spalsbury** presented posters and **Luginbill** contributed an oral presentation to the program as follow: **Eric Johnson**, Raul Rameriz, and Keith Gido. Effects of Artificial Lighting on Brook Silverside Condition and Competitive Ability.

Jason Luginbill, **Bill Stark**, and **Mark Eberle**. Status of an Isolated Population of Topeka Shiners (*Notropis topeka*) in Northwest Kansas with Implications for a Reintroduction.

David Spalsbury and **Bill Stark**. Evaluation of American Waterwillow, *Justicia americana*, as Potential Centrarchid Nursery habitat at Cedar Bluff Reservoir, Kansas.

Dr. Eric Gillock attended the annual Fall Medical Technology Advisor's Meeting at St. Luke's Hospital in Kansas City, MO. While there, he renewed affiliation agreements with area schools of medical technology. He was told by all program directors that medical technology graduates are in very high demand, and that it is not unusual for a new graduate to have at least five job offers. In Kansas City or Wichita a new med tech graduate can expect to start at \$20-25 per hour.

In July, **Dr. Mary L. Morgan** attended a two-week workshop at Smith College, Northampton, MA, on "Molecular Biology and the Polymerase Chain Reaction."

Mark Eberle attended the biennial 16th North American Diatom Symposium, 19-21 September 2001, at a lakeside YMCA camp adjacent to the Boundary Waters Canoe Area Wilderness near Ely, Minnesota. 60 oral and poster presentations were delivered over 2 days by researchers from the US, Canada, Mexico, and Europe. Eberle gave a poster presentation: **M.R. Harris** and **M.E. Eberle**. *Diatoms from high-chloride marsh and stream habitats in central Kansas, USA*.

GRADUATE STUDENTS

At the 53rd annual meeting of the Kansas Ornithological Society, held at the Great Plains Nature Center in Wichita, KS, **Matt Bain** gave his first oral presentation at a professional meeting on the display behaviors of lesser and greater prairie-chickens. Using a combination of graphics and vocalization samples he described for the first time possible hybrids between these two species. Matt surveyed over 90 leks, or display aggregations of breeding males, in five counties in western Kansas and located 27 leks that contained individuals of both species. At nine of these same leks he heard and observed birds with intermediate ornamentation and vocalizations. We have coined these birds "guessers", and this year's research effort will concentrate on the mixed-lek phenomenon and the possibility of hybridization. This research is supported by a grant from Kansas Department of Wildlife and Parks [published abstract: Greater and Lesser Prairie-Chicken

(*Tympanuchus*) Interactions in Western Kansas, **M. R. Bain and G. H. Farley**].

Also at the 53rd Annual Meeting of the Kansas Ornithological Society in Wichita, KS, **Jamie Timson** described the results of her two-year study on the breeding biology of house wrens. In addition to color-banding 798 individuals, she quantified productivity and survivorship of 222 different breeding attempts. A total of 16 banded birds exhibited site fidelity to her study area, this group of 10 adults and 6 first-year birds successfully migrated to wintering grounds and returned in several cases to the same territory! Of particular note is her discovery of aggregations of immatures from different broods. The possible function of these groups of different-aged, unrelated individuals remains under investigation [published abstract: Breeding Productivity and Post-Fledging Movements of House Wrens, **J. E. Timson and G. H. Farley**].

PUBLICATIONS

Pitts, R.M., **J.R. Choate**, J.J. Scharningjausen, and **K.C. Chapman**. 2001. Distributional records for mammals in north-central Texas. Texas Journal of Science, 53:82-87.

Calisher, C.H., J.N. Mills, W.P. Sweeney, **J.R. Choate**, D.E. Sharp, K.M. Canestorp, and B.J. Beaty. 2001. Do unusual site-specific population dynamics of rodent reservoirs provide clues to the natural history of hantaviruses? Journal of Wildlife Diseases, 37:280-288.

Callaway, D. Giesman-Cookmeyer, **E.T. Gillock**, T.L. Sit, and S.A. Lommel. 2001. The Multifunctional Capsid Proteins of Plant RNA Viruses. Annual Review of Phytopathology.. 39:419-60

BIOLOGY CLUB BITS

The Corn Boil sponsored by Biology Club for Oktoberfest was a success thanks to the following people: **Curtis Wolf, Eric Starkey, Chad Maier, Valena Hickert, Regina Green, Sam, Melanie Passmore, Josh Melby, Jeff Conley, Cathy Davignon, and Natalie and Michaela Spalsbury, and Sara Kay Carrell**. A special thanks to **Mark Eberle** and **Greg Farley** for providing BBQ grills.

Tiger Call phonathon will be Nov. 6, 5:30-9:00 PM

Fall Freeze BBQ will be Sunday, Oct. 28. Watch for details to be posted in department.

Biology Club contacts: Sara Kay Carrell, Curtis Wolf, or Eric Starkey