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ALUMNI NEWS

As the number of vegetation conservation areas increase, especially in Africa, the debate has arisen among scientists about the location and functionality of the designated locations. These were some of the issues addressed when **Nichole Lambrecht** (B.S. 2002), current student at the University of Pretoria in the Republic of South Africa, spoke on Tuesday, Sept. 23, in Albertson Hall, room 169, on FHSU's campus.

Nichole is looking at whether the conservation areas that are set up protect all the different types of vegetation or if the selected areas just protect whatever is in that location. Were the places selected because they were convenient, was it because of political problems or is there a specific reason to why they have been chosen?

"To date" Lambrecht wrote in her master's thesis, "most conservation areas have been designed on an ad hoc basis in areas not suitable for agriculture and forestry or for urban development. The main goal of systematic conservation planning is to design protected areas that represent the full variety of biodiversity and promote the persistence of these organisms by maintaining natural processes and viable populations by excluding threats."

"The purpose of this study is to test the representativeness of vegetation types within the conservation areas of southern Africa," she wrote.

Following the 15-20 minute public seminar, Lambrecht presented a slide show of African wildlife that she's taken while helping grad students. This was described as the "Ooh and awe factor" that shows what Lambrecht experiences daily in Africa.

Lambrecht received her bachelor's degree in biology from FHSU in December 2002. She is currently working on her master's in Conservation Ecology and Planning at the University of Pretoria.

GRADUATE STUDENTS

Graduate students **Aileen Johnson** (B.S. 2000), **Sherrie Millison** (B.S. 2003), and **Lance Thurlow**

(B.S. 2000) along with **Dr. Eric Gillock**, attended the Second Annual Great Plains Infectious Disease Meeting held on the KU campus in Lawrence on Sept 13. Aileen presented a poster entitled: Phylogenetic determination and characterization of two unknown halotolerant bacteria isolated from Haberer's Salt Marsh in Russell County, Kansas. Lance presented a poster entitled: The Characterization of a Novel Sporulating Bacterial Species by 16S rRNA Sequencing.

PUBLICATIONS

Jamie Timson (M.S. 2002) and **Dr. Greg Farley** recently published a note in The Southwestern Naturalist on observations made during Jamie's thesis research along Big Creek. *Intraspecific Helping Behavior Exhibited by Hatch-Year House Wren* describes observations of feeding at a house wren nest by an individual other than the parents. The male and female birds associated with this nest were both color-banded, meaning they possessed a unique combination of plastic bands that allowed a human observer to identify individuals. This type of assistance with rearing offspring produced by other individuals is termed "helping" and is often interpreted as a precursor to cooperative breeding. In this unusual type of breeding system adults and/or juveniles in a species delay their own breeding in order to assist other individuals in rearing offspring. In many species the helpers are not close genetic relatives of the breeders, rather the behavior evolves due to reciprocity; the helper birds which assist nestlings in one year are later repaid as those nestlings subsequently assist the helpers rear their own offspring. **Mark Eberle** is the Managing Editor of this journal, and current graduate student **Curtis Wolf** (B.S. 2002) is the Editorial Assistant

Dr. Keith R. Harmoney, Dr. Phil W. Stahlman (K-State Agricultural Research Center), and **Dr. Karen R. Hickman** have had the manuscript entitled "Herbicide Effects on Established Yellow Bluestem (*Bothriochloa ischaemum*)" accepted for publication in the Journal of Weed Science.

ODDS AND ENDS

Amy Hladek, senior, and **Dr. Karen Hickman**, in conjunction with Tim Todd, nematologist at Kansas State University, are currently investigating the influence of Old World Bluestems on nematode communities within the mixed-grass prairie. Dr. Hickman and Amy collected soil samples from various locations in Alfalfa County, Oklahoma; including samples from native, Conservation Reserve Program, and Old World Bluestem pastures. Following collection, Amy spent a week at Kansas State University processing the 72 samples collected so that she and Todd could analyze the nematode composition in the soils. A fall sampling is scheduled to compare the seasonal differences in nematode composition in these same pastures. Results from her research will be presented this spring during the FHSU Sigma Xi's Science Research Showcase.

FHSU Department of Biological Sciences served as the host for the fall Kansas Section of the Society for Range Management (SRM) meeting held on the FHSU campus September 24-25. **Dr. Karen Hickman** served as the local host and welcomed 19 individuals from throughout Kansas to the meeting. The major activity at the meeting was a Range Tour entitled "Old World Bluestem Research" in which participants toured several research locations on the FHSU Farm and the K-State Agricultural Research Center. Dr. Keith Harmony and Dr. Hickman described various research projects they are conducting at these sites. Some of the topics included the effect of herbicide on Old World Bluestem and studies using monoculture plots of native grasses and Old World Bluestems. In addition, research on monitoring and tracking the spread of Old World Bluestem, conducted by **Dr. Robert Nicholson** was presented. Following lunch in the Memorial Union, the final presentations of the Range Tour focused on research being conducted by **Rachel Copeland** (Using Landsat 5 TM Imagery to Assess Invasion Potential of Old World Bluestems) and **Cheryl Schmidt** (B.S. 2001) (Competitive Ability of Native and Non-native Grasses: An Old World Bluestem Greenhouse Study), graduate students of Dr. Hickman.

One attraction of Fort Hays State University to incoming biomedical students is hands-on research.

In an effort to make in-depth research projects routine and to help with high research expenses, FHSU joined the Kansas Biomedical Research Infrastructure Network (KBRIN) three years ago. This program offers biomedical graduate and undergraduate students an opportunity to pursue in-depth research projects that are not offered through a class offering scholarships varying from \$3,000 to \$25,000.

"For students, it's a great way of getting a little money to pursue a project that they might not be able to do," said Dr. Tom Wiese, associate professor of chemistry at FHSU. "It also establishes a network at other universities that will help them develop professionally."

KBRIN joins FHSU with eight other universities to create a network for biomedical research. The University of Kansas and the KU Medical Center in Lawrence, Kansas State University, and Wichita State University serve as information centers and educational facilities for graduate students who wish to earn doctoral degrees. FHSU, Emporia State University, Haskell Indian Nations University, Pittsburg State University, and Washburn University serve as recruiting facilities for promising biomedical undergraduates.

"What FHSU does in the program is get outstanding undergraduate students involved in research," said Dr. Mike Madden, director of Medical Diagnostic Imaging and Radiologic Technologies at FHSU. "The students can then go to the larger regent schools to get their Ph.D. This program also gives FHSU an opportunity to allow students to do some current research."

Presently, five graduate and three undergraduate students are participating, up from five participants last year. Of those students, **Jeff Berry** (B.S. 1998 (Allied Health)), **Ryan Ausborn** (B.S. 2002), **Lance Thurlow** (B.S. 2002), **Sherrie Millison** (B.S. 2003), all graduate students, and **Kasey Swayden**, a junior, are working in the Department of Biological Sciences. Faculty members from the department participating in the program are **Dr. Eric Gillock**, **Dr. Duane Hinton**, and **Dr. Mary Morgan**.

Last year, FHSU received \$87,000 in student scholarships and \$35,000 to support biomedical research project costs from KBRIN.

"KBRIN changes each year as it gets bigger and bigger," Madden said. "Originally it was slated for only three years, but the program has since been expanded into the five-year program, KBRE (Kansas Biomedical Research Excellence), which will begin September 2004."