

DEPARTMENT OF BIOLOGICAL SCIENCES

BIO BRIEFS

A Note from the Chair

Alumni and Friends,

This is an exciting time for the Department of Biological Sciences at Eastern Illinois University. Since our last newsletter, we have added five new faculty members, Drs. Gary Bulla (Cell Biology), Ann Fritz (Entomology), Karen Gaines (Ecotoxicology), Zhiwei Liu (Systematics), and Scott Meiners (Plant Ecology), who are making significant contributions to our programs. We are currently searching for a new tenure track faculty member in Plant Anatomy and Morphology. We have outstanding faculty who have not only established regional and national reputations as research scientists and scholars but as excellent, supportive teachers who provide individualized attention to all students. We continue to pride ourselves on the superior teaching and research opportunities that we provide for our students and recognize the importance of preparing students for admission to the finest graduate and professional schools in the country or to readily gain meaningful employment upon graduation.

During Fall Semester 2005, the department finished a revision of the major and the common core of classes that Biological Sciences majors complete. Students who major in Biological Sciences will now choose among three options (Biological Sciences, Environmental Biology or Science with Teacher Certification). The revised B.S. in Biological Sciences allows students to complete a common core of biology, math, chemistry, and physics courses while providing the academic flexibility to enroll in a variety of biology courses and maintaining our historical strengths in organismal biology and ecology. The department has also reinvigorated the Honors Program in Biological Sciences. The Honors Program provides an opportunity for academically qualified students to enroll in more rigorous and challenging courses, pursue individual research interests with a faculty mentor, present a departmental seminar, and complete an Honors thesis.

We are extremely grateful to all of our benefactors who continue to generously support our programs. Your contributions have allowed the department to support undergraduate student research and travel to meetings through the establishment of a new undergraduate research fund, institute a Biological Sciences Seminar Series to bring distinguished biologists to campus to present research seminars, create a fund to support a week-long Darwin Days program, renovate teaching and laboratory facilities including a new computer laboratory designed for innovative teaching, and purchase state of the art equipment for teaching and research. No gift is too small, and your support has had a significant and positive impact on the opportunities that we provide our students. If you are ever in Charleston, please stop in and visit. Your friends in the Department of Biological Science extend our best wishes in your career and personal life.

Andrew S. Methven, Ph.D. Professor and Chair

Former Chair to Retire

Kipp C. Kruse will be officially retiring from EIU effective July 31, 2006. Kipp began his career in the fall of 1979 and went through the ranks of Assistant, Associate and Full Professor spending his entire academic career at EIU. He served as Chair of the Department of Zoology (three years) and later was the first Chair of the Department of Biological Sciences (six years). Kipp was awarded the Eastern Illinois University Distinguished Faculty award in 1991 and received the College of Sciences Ringenberg Award in 2002. As a faculty member he received six Faculty Excellence Awards in the area of Teaching and Research.

Kipp stated that "I have always loved to teach and EIU gave me an opportunity to do that for which I am very grateful. I enjoyed teaching lectures and laboratories very much but my teaching also involved mentoring students through research projects. To be able to watch a young student come to my laboratory and develop a research question, a protocol to answer that question, collect and analyze data and then write a paper that was later published in a national or international peer-reviewed journal was extremely gratifying to me. I will miss that very much. I will also miss interacting daily with my colleagues; we have an excellent Department filled with outstanding faculty members and I feel fortunate to have been a part of that."

Kipp plans to perhaps continue teaching at some level and is debating writing a textbook. "My immediate plans are uncertain at this point but I will be staying in the Charleston area until my wife, Linda, retires from the Charleston school system."

New Faculty

Dr. Gary Bulla's research focuses on control of genes in mammals, with emphasis on genes that, when improperly regulated, contribute to liver disease and diabetes. Gary received his Ph.D. from the University of Colorado in 1987 and joined EIU's faculty in 2002. He teaches Biology, Advanced Molecular Biology and Developmental Biology.

Dr. Karen Gaines, an ecotoxicologist, joined the faculty in 2005. Karen worked at the Department of Energy's Savannah River Site for nine years and received her Ph.D. from the University of South Carolina in Environmental Health Sciences. Her research interests focus on exposure and uptake of contaminants in wildlife. Karen teaches Environmental Science, Ecotoxicology, Resource Management and Environmental Assessment, and Spatial Analysis for Environmental Sciences.

Dr. Scott Meiners, a plant ecologist, joined the faculty in 2001 after receiving his Ph.D. from Rutgers University. His research interests focus on the vegetation dynamics of abandoned agricultural land and the impacts of exotic plant invasions on communities. Scott teaches Botany, Plant Ecology and Advanced Biostatistics.

Dr. Ann Fritz received her Ph.D. from Indiana University in 2001 and joined the faculty in 2001. She primarily examines one form of sexual selection, "cryptic female choice," which concerns the dynamics of sperm storage and use in female insects insofar as their possible effects on paternity outcomes. Her research includes studies on copulatory behavior, and reproductive system development and morphology. She teaches Organic Evolution and Animal Diversity.

Dr. Zhiwei Liu earned his Ph.D. at the Swedish University of Agricultural Sciences, Uppsala, Sweden in 1998. He came to EIU in the Fall of 2004. His primary research interests surround the phylogenetic systematics and evolution of cynipoid wasps. His earlier research focused on phylogeny and historical biogeography of the "macro cynipoid" wasps parasitizing wood-boring insects using morphology characters to reconstruct phylogeny. His systematic work also includes taxonomic studies, including revisions and description of new species. Currently, he teaches Evolution and Systematics.



Faculty and Staff Retirements

Judith James, 2000; Hank Nilsen, 2001; Joyce Edwards, 2005; Kipp Kruse, 2006

Graduate School Update

The Biological Sciences Graduate program is alive and well and growing! In fact, we are having trouble finding a desk for every graduate student that needs one. This spring the program has forty students active and in the building. More good news - more students are supported than ever before: seventeen on Teaching Assistantships and ten by externally funded projects. Recent graduates have completed thesis research on a variety of topics including:

Erin Cleere, "Beaver dispersal: characteristics of sub-adult dispersal in areas of high beaver density."

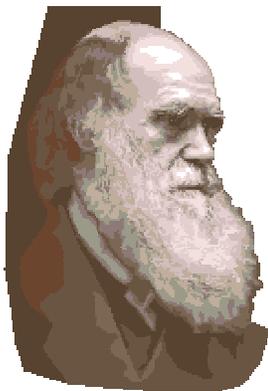
Chris North, "The effects of land-use on stream macro faunal communities and food webs."

Holly Wallace, "Copulatory behaviors of male Caribbean fruit flies and female sperm storage patterns."

The rejuvenated Biological Sciences Graduate Student Association sponsors a seminar series (replacing the "ZOO CLUB" you remember) featuring speakers from all areas of the life sciences. Each semester, one of the invited speakers is an EIU graduate. If you have some interesting science to share, let us know - the BSGSA would welcome the chance to invite you to speak. The growth and success our graduate program is enjoying today is possible in large measure because of the quality and hard work of our graduates.

Darwin Day

Honoring Darwin's Accomplishments



The famous geneticist, Theodosius Dobzhansky, once wrote, "Nothing in biology makes sense except in the light of evolution." The sentiment expressed in these words sums up the reasons why, in mid-February 2006, three faculty members within the Department of Biological Sciences will be hosting our third annual Darwin Day. In doing so, EIU will be joining hundreds of other academic institutions around the globe in recognizing the accomplishments of a man who has likely contributed more to the understanding of the natural world than anyone before or since.

Darwin Day is an internationally organized event that promotes awareness of Charles Darwin's contributions to science, in particular his work on evolution by process of natural selection (see <http://www.darwinday.org/> for further information). Typically, events scheduled for a Darwin Day celebration occur on or around Darwin's birthday (12 February). Thanks to the efforts of Professors Ann and Gary Fritz and Stephen Mullin,

EIU's Darwin Day has quickly become one of the largest such celebrations in the western hemisphere. Given the recent spate of religious fundamentalism, and its potential to impact the delivery of science education in publicly-funded schools, these faculty members are proud to organize, and receive university support for, such a comprehensive series of Darwin Day lectures.

As with previous years, our next Darwin Day will have a central theme - in 2006, this theme emphasizes scientific awareness in our society. In addition to their use in understanding biological phenomena, Darwin's ideas have applications in other fields. The scientists who will be featured speakers during Darwin Day 2006 will draw attention to the broader scope of evolution and its impacts on societal function.

The visibility of EIU's Darwin Day has brought additional benefits for the University. Former EIU staff members and current benefactors, Herbert and Jane Lasky, have recently bequeathed an endowment that will help fund future Darwin Day programs at EIU. First, the endowment will provide funds to partially cover the costs associated with each year's Darwin Day events (speakers' fees, lodging, travel costs, etc.). Second, the endowment creates a new student award: The Stephen Jay Gould Award. This award will be presented each year for the best student paper written on the topic of the year's Darwin Day theme. This cash award of \$500 not only benefits the student who receives it, but will also increase the on-campus and community awareness of Darwin Day events. Individuals interested in contributing to this endowment should contact the EIU Foundations Office, or Prof. Andrew Methven, Chairman of the Department of Biological Sciences.

Darwin Day

Calendar of Events

Thursday, February 9th, 2006 4:30 PM Life Science Building, Room 2080

Lecture: "The ecology and evolution of sleep: an adaptationist perspective." Steven Lima, Dept. of Ecology & Organismal Biology, Indiana State University.

Friday, February 10th, 2006 3:30 PM Life Science Building, Room 2080

Film: "Inherit the Wind."

Monday, February 13th, 2006 4:30 PM Lumpkin Hall, Roberson Auditorium (Room 2030)

Lecture: "Darwin and the politics of science in the 21st century." Jon Miller, Director of Biomedical Communication, Northwestern University.

Tuesday, February 14th, 2006 5:00 PM Lumpkin Hall, Roberson Auditorium (Room 2030)

Lecture: "The Boundaries and Role of Science in Public Education." Lewis Branscomb, Visiting Faculty of the Graduate School of International Relations and Pacific Studies, University of California at San Diego.

Wednesday, February 15th, 2006 7:00 PM Physical Science Building, Phipps Auditorium.

Workshop #1: "Age of Earth" with John Stimac, Dept. of Geology/Geography followed by workshop #2 "Hume's Philosophy" with Richard Foley, Dept. of Philosophy, Eastern Illinois University.