

## *The Alumnidae*

Fall 2012

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Department of Zoology, Life Sciences West 501  
<http://zoology.okstate.edu>  
405-744-5555

## *Fund Established to Honor Ms. Karen Smith*

Ms. Karen Smith, a longtime employee for OSU College of Arts and Sciences, passed away 2 November 2012 in Stillwater, Oklahoma. Karen graduated from OSU with her Bachelor of Science in Physiology and her Master of Science in Psychology, and she later returned to OSU as a senior academic counselor in the College of Arts and Sciences. At the time of her death, Ms. Smith was a senior academic counselor in the Department of Zoology and was well known throughout the academic community for helping undergraduates reach their full potential. In recognition of her exceptional service to the Department of Zoology undergraduate student body, Zoology is extremely pleased to announce the establishment of the semi-annual Karen L. Smith Undergraduate Research Symposium. The symposia will provide opportunities for professional development and promote excellence in OSU undergraduates working in the life sciences.



Ms. Smith was instrumental in designing this opportunity for Zoology Undergraduates to present results from independent studies while fostering a deeper understanding of the scientific method and critical thought. This is just one example of how Ms. Smith worked tirelessly to enhance the undergraduate experience. Although the objective is to provide an informal venue to discuss undergraduate research activities, the best student presentation will be recognized at each spring and fall symposia. The first Karen L. Smith Undergraduate Research Symposium was held 30 November 2012 in Life Sciences West (see article on page 4 of this newsletter).

In addition, the Department of Zoology has set up the **Karen L. Smith Undergraduate Symposium Fund** in her honor. The money donated to this fund will be used to support the symposium and provide cash awards to students

Ms. Smith served as a role model for the students she advised and pushed them to expect more from themselves and to achieve. She will be greatly missed by all of us.

## *Greetings from the Department Head*

Greetings to you all. As many of you have heard, the three OSU Life Science departments are going through reorganization and this summer they will be combined into two departments. Zoology will likely be getting a new name. Hopefully we can provide additional information in the next newsletter. As you will see in this installment, there have been a number of gifts recently made to the department. We certainly appreciate all the alumni, friends, and faculty, past and present, who made this a fantastic giving year. We have two new regular faculty, Drs. Jennifer Shaw and Mary Towner, as well as a new student advisor, Dana Hatter. The new A&S Dean, Bret Danilowicz, is also a Zoology faculty member. He is featured in the latest college newsletter. We are losing great friends and colleagues, Dr. Alex Ophir and his wife, Angela. They are moving to New York where Alex is joining the faculty at Cornell. Finally, we continue to miss our advisor, Ms. Karen Smith. We hope you can attend the semi-annual undergraduate research symposium named in her honor. The annual awards banquet is on March 30th and we hope to see you there.

## Faculty Highlights

### Dr. Michael Tobler receives national honor from Sigma Xi Society



Oklahoma State University researcher Dr. Michael Tobler has been selected to receive the Sigma Xi 2013 Young Investigator Award, a national honor given annually to a young researcher (within 10 years of his or her highest earned degree) whose outstanding contributions best exemplify the ideals of Sigma Xi, the Scientific Research Society. The award was established in 1998 and Dr. Tobler represents the first recipient of this award at an institution in Oklahoma. "It is a great honor earning such a prestigious award and receiving recognition for our research efforts over the past 10 years," said Tobler. "I am very grateful for this opportunity, but also for the mentors, collaborators in Mexico, Germany, and the United States, and my excellent students who have contributed to this endeavor."

The award, which includes a certificate of recognition and an honorarium of \$5,000, recognizes individuals for their scientific achievements, interdisciplinary research, and the ability to communicate the significance of their achievements to the public. Tobler earned his Ph.D. from the University of Zurich Institute of Zoology in 2008 and joined the Department of Zoology in 2010. In the spring of 2012 he was awarded the Sigma Xi Young Investigator Award for the Oklahoma State University Chapter of Sigma Xi.

"Dr. Tobler is an outstanding scientist who studies the evolutionary adaptations of animals to extreme environments," said Loren Smith, head of the OSU Department of Zoology. "He has a terrific record of publishing scholarly manuscripts as well as receiving external competitive grants to fund his research. The results of his research have been well covered in the international public media and he obviously deserves this prestigious honor."

Tobler has been awarded several grants, the latest is from the National Science Foundation to study fish in extreme habitats. He is also currently performing research on endangered fish and crayfish species with grants from the Oklahoma Department of Wildlife Conservation. Tobler recently studied the ecology, evolution and conservation of sulfide fish species in Mexico with a grant from The National Geographic Society.

### Department of Zoology welcomes two new tenure-track faculty

Dr. Mary Towner (right) is a human behavioral ecologist who has been teaching and doing research in the Department of Zoology since Fall 2008. She has a Ph.D. in Animal Behavior from UC Davis and a B.A. in Ecology, Behavior, and Evolution from UC San Diego. Her research interests include dispersal and parental investment, demography, and cultural evolution, with a focus on quantitative methods and modeling.



Dr. Jennifer H. Shaw (left) has served as adjunct faculty in Zoology since 2005 teaching Mammalian Physiology. She earned her Ph.D. in Pharmaceutical Sciences in 2000 from the University of Montana. For the past 3 years Jennifer has been a Research Associate at the OSU Center for Veterinary Health Sciences where she studied hydrogen peroxide as a signaling molecule from the endothelium to the underlying smooth muscle and its effect on gene & protein expression of arteriogenic factors. She lectured in Veterinary Physiology and Veterinary Pharmacology. Jennifer will continue her research on the effect of oxidative stress on intercellular communication within the coronary vessel wall.

## **Researchers at Oklahoma State receive funding from the South Central Climate Science Center**

The South Central Climate Science Center – of which OSU is a member – is one of eight Department of Interior regional climate science centers nationwide. Dr. Kristen Baum, an associate professor in the Department of Zoology, is principal investigator on “Terrestrial Connectivity across the South Central United States: Implications for the Sustainability of Wildlife Populations and Communities,” a two-year project that received \$203,918.

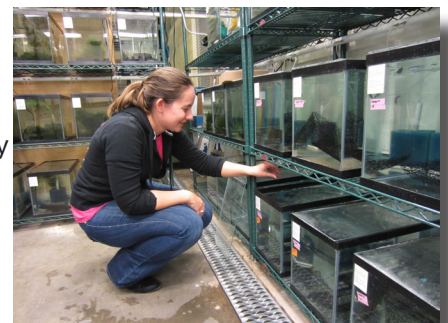
Connectivity, or the extent to which a landscape facilitates or impedes the movement of organisms, is an important component of the sustainability of wildlife populations and communities. Habitat fragmentation, modification, and loss have been implicated in the decline of almost all threatened and endangered species, and both continued land-use change and climate change will have an effect on connectivity. The goal of this project is to use a systematic and comprehensive approach to evaluate terrestrial connectivity across the South Central United States. Models will be used to predict patterns of connectivity for species which vary in habitat preferences, methods of habitat selection, and responses to the area between habitats. Researchers will evaluate the implications of predicted land-use change across the study area, including a focus on climate change and dominant land uses within the region. The results of this project will include spatially explicit connectivity maps that can be used for making informed management decisions about terrestrial connectivity within this region.

Dr. Baum’s cooperators and partners include: Samuel D. Fuhlendorf, Department of Natural Resource Ecology and Management, OSU; Kristopher L. Giles, Department of Entomology and Plant Pathology, OSU; Daniel Saenz, Southern Research Station, U.S. Forest Service; Monica Papeş, Department of Zoology, OSU; Norman C. Elliot, U.S. Department of Agriculture, Agricultural Research Service; Bill Bartush, Gulf Coast Prairie Landscape Conservation Cooperative, National Wetlands Research Center; Allan Janus, Oklahoma Department of Wildlife Conservation.

## *Graduate Student Accomplishments*

### **Courtney Passow receives award from American Livebearer Association**

Zoology graduate student Courtney Passow received the Vern Parish Award from the American Livebearer Association (ALA) for her work on elucidating the genetic basis of adaptation in extremophile mollies. ALA’s mission is to gather, organize and disseminate the knowledge of livebearing fishes and to further the conservation of species and their natural habitat. The Vern Parish Fund was established in memory of Vern Parish, one of ALA’s early stalwart members and a great friend and benefactor to many aquarists during his lifetime. It is awarded to individuals whose research and future potential contributions will add to the knowledge about and/or assist in the conservation of livebearing fishes. The Vern Parish Award not only helps to subsidize and to encourage conservation and student research of livebearing fishes but also gives status and visibility to the American Livebearer Association as a legitimate member of and contributor to the hobby and ichthyological communities. Courtney Passow currently is a Ph.D. student in Dr. Michael Tobler’s lab.

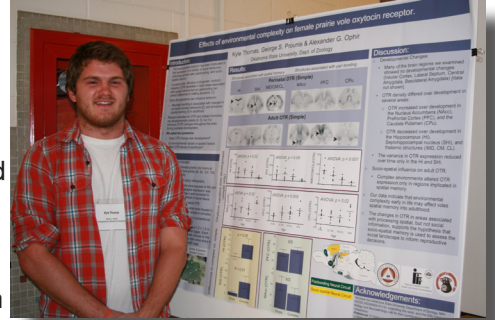




**First Karen L. Smith Undergraduate Research Symposium held in November**

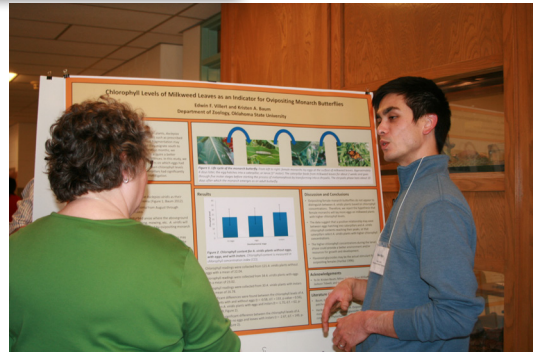
On 30 November 2012, 18 undergraduate students in the Life Sciences presented their research at the first Karen L. Smith Undergraduate Research symposium. The symposium was established in November 2012 in honor and recognition of Karen Smith's exceptional service to undergraduates at Oklahoma State University. The symposium will be held twice a year.

Presentation topics ranged from the host preferences of parasites to the effects of hormones on behavior. Undergraduate students presented posters describing their research to an audience of more than 150 faculty, graduate students, and undergraduates. The Karen L. Smith Research Excellence Award was given to Kyle Thomas (senior Zoology major, right) for his research with Dr. Alex Ophir on the effects of environmental complexity on female prairie vole oxytocin receptor. The award includes \$200 and will be given to the best student presentation at both the Spring and Fall symposia. The Spring symposium is scheduled for 19 April 2013 - we hope to see you there!



**Ariel Richter and Dr. Stanley Fox**

Ariel presented her research on roadside mortality in urban and non-urban sites for two species of box turtles. Dr. Tim O'Connell and Eric Johansen were coauthors along with Ariel and Dr. Fox



**Dr. Karen McBees and Edwin Villert**

Edwin presented results of a study on chlorophyll levels of milkweed leaves as an indicator for ovipositing monarch butterflies. His faculty mentor was Dr. Kristen Baum

## *Three new endowment funds established in Zoology*

### **Herbert and Betty Bruneau Endowed Zoology Seminar Fund**

Zoology Professor Emeritus L. Herbert Bruneau recently established the "Herbert and Betty Bruneau Endowed Zoology Seminar Fund" with a \$25,000 gift to the Department of Zoology. Even in retirement Dr. Bruneau tries to attend the Friday seminar series presented during the Spring and Fall semesters. Interest from the endowment fund will be used to support travel expenses of off-campus speakers as well as other seminar related costs. The fund will greatly assist with seminar offerings in OSU Zoology by allowing us to bring in speakers from across North America.

Dr. Bruneau joined the faculty of the Department of Zoology at Oklahoma A & M College (now Oklahoma State University) in the Fall of 1955, taught for 40 years, and retired in 1995. He obtained his Ph.D. at the University of Texas, Austin. During his time at OSU he taught courses in Biological Sciences, Genetics, Cytology, and Evolution and offered the first departmental courses in Evolution and Human Heredity. He received the Amoco and the Regents Teaching Awards and was involved with the NSF Academic Year and Summer Institute Programs for High School Science Teachers.

### **Dr. Bryan P. Glass Student Scholarship/Fellowship Fund in Zoology**

In August 2012 the Department of Zoology established a fund to honor retired faculty member Dr. Bryan P. Glass. Dr. Glass arrived at OSU in 1946 and became a faculty member while working on his PhD. With the help of his students he provided much of the early knowledge on the mammalian fauna of Oklahoma. He retired from the department in 1985. Dr. Glass passed away on 27 August 2010. When the charitable gifts to the endowment reach the \$25,000 minimum we will be able to award the first scholarship or fellowship. We are halfway there! Recipients must be enrolled in the Department of Zoology and making progress toward attaining their degree as determined by the Department Awards Committee. Also the recipients must be incorporating or have incorporated experience with the Oklahoma State University Collection of Vertebrates as part of their academic career. Dr. Glass served as the Curator of Vertebrates in the Department of Zoology from 1948 until his retirement.

### **The Wilhm Graduate Student Travel Award Fund**

Former Zoology department head Dr. Jerry Wilhm and his wife Winona have established another endowment fund. This award is to be given annually to a graduate student in the Department of Zoology for expenses involved in attending a national/international meeting. The student must have a minimum 3.0 cumulative grade point average and be presenting a paper at the meeting (oral presentation preferred). In addition the selection process will include criteria such as how likely the student is at obtaining support from other sources, satisfactory progress toward his/her degree, presentations or publications of papers, as well as participation in activities such as departmental, college, or university committees, scholarly activities outside the university and attendance at departmental seminars. The first award will be made in March.

### **Other Departmental News:**

Dr. Matt Lovern was one of seven Oklahoma State University faculty members recently named as a 2012 recipient of the Regents Distinguished Teaching Award. This is the 22nd year outstanding faculty members have been recognized for their expertise and dedication to teaching.

In December 2012, thirty students graduated with B.S. degrees in biological science, physiology, or zoology. Edwin Villert (B.S., Zoology) was selected to represent the College of Arts and Sciences and carried the college gonfalon in the Student Processional. Congratulations to Edwin and our graduates!

**Don't miss out on the fun:**

**Come join us for the 2013 Department of Zoology Awards Banquet on 30 March in Click Hall-Conoco Phillips OSU Alumni Center from 6 - 9 PM. If you would like to attend please contact Audrey at 405-744-5555**

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DEPARTMENT OF ZOOLOGY  
Oklahoma State University  
Life Sciences West 501  
Stillwater, OK 74078

Nonprofit Organization  
U.S. Postage Paid  
Permit No. 191  
Stillwater, OK 74078

Phone: 405-744-5555

<http://zoology.okstate.edu>

## *Keep in Touch and Help Us Grow Stronger*

We hope you enjoy *The Alumnidae*, and we hope to hear from you about future issues. To be sure that you continue to receive the newsletter, please update address and email information with the OSU Alumni Association at:

<http://www.orangeconnection.org/>

If you have comments, questions, or contributions for *The Alumnidae* send them directly to [meredith.hamilton@okstate.edu](mailto:meredith.hamilton@okstate.edu)

### **YES! I want to support the ZOOLOGY DEPARTMENT at Oklahoma State University!**

#### **1. DESIGNATION**

- Zoology Excellence Fund (223750)
- Wilhm Teaching Assistant Award (228230)
- Wilhm Graduate Student Travel Award (228235)
- Scholarship for Zoology Students (224550)
- Burks Student Award (223590)
- Herbert and Betty Bruneau Zoology Seminar Fund ( 229873)
- Dr. Michael Steelman Scholarship (229830)
- Bryan P. Glass Scholarship/Fellowship (229893)
- Chappabitty Scholarship (228855)
- Collection of Vertebrates
- Other \_\_\_\_\_

**2. AMOUNT** \_\_\_\_\_

#### **3. OPTIONS**

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#### **4. CONTACT INFORMATION**

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- Please contact me regarding additional gift opportunities

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