Mary Beth Davis, a Zoology major, who has been paralyzed from the waist down since a car accident four years ago, walked across the stage on 10 May to receive her diploma along with the other College of Arts and Sciences graduates. Her walk was made possible by an Esko Bionic suit, therapists at INTEGRIS Jim Thorpe Rehabilitation in Oklahoma City, and her determination not to let obstacles get in the way of her goal of becoming a veterinarian. The wearable suit allows the individual to walk by detecting the user’s weight shifts, and in turn, initiating steps. Battery powered motors drive the limbs, compensating for the deficient neuromuscular function. While completing her Zoology degree, Mary Beth conducted research in the Collections of Vertebrates under the guidance of Dr. Karen McBee. She recently presented the results of her study on the identification of Ethiopian members of the genus *Gerbillus* housed in the OSU Collection of Vertebrates at the 4th Karen L. Smith Undergraduate Research Symposium (see page 3).

Mary Beth will spend the next year fulfilling her obligations as Miss Oklahoma Wheelchair and then apply for veterinary school for the 2015 academic year.

Photo by Brian Petrotta, used with permission.

Greetings from the Department Head

As you will see in this issue of the Alumnidae the students and faculty in the Department of Zoology had another terrific year. Undergraduate enrollment remained at 2013 levels, 660 students. Enrollment will likely stay at this number until we can identify additional space to accommodate more students. Graduate students now number 67 and continue to rise along with grant dollars garnered by the Zoology faculty.

Many of you have asked about reorganization of the Zoology, Microbiology and Molecular Genetics, and Botany Departments. This has been halted but the management of the Biology degree major is now being examined. Hopefully, we will have additional information on this for the next issue. Also, Dr. Michi Tobler will be leaving the department and taking a position at Kansas State University. We wish him all the best. Finally, Dr. Shawn Wilder will be joining us as a new assistant professor and Drs. Jason Bruck, Uriel Buitrago-Suarez, and Renate Eberl will be joining us as new visiting assistant professors. Please welcome them all!

Loren M. Smith (email:loren.smith@okstate.edu)
New staff member joins Zoology Department

Allyn Evans joined the Department of Zoology as Academic Senior Counselor in November 2013. Allyn earned a B.A. in Psychology from the University of Mississippi and her MBA from Texas Tech University. Allyn’s background is varied and includes working as Career Counselor/Advisor as well as Associate Dean of Workforce Development at South Plains College in Texas. Starting in 2005, Allyn held contracts with numerous Career Technology Centers around Oklahoma, offering personal and professional development workshops and mentoring to nontraditional STEM students. Most recently, she served as a lead trainer for a non-profit research organization offering workshops nationwide. For the last four years, she has made an annual trek to Bimini, Bahamas where she facilitates a trip swimming with wild dolphins.

Ashley Knoch - Honorary Graduate Commencement Marshall

Ashley Knoch, an M.S. student advised by Dr. Kristen Baum, was selected as an Honorary Graduate Commencement Marshall for the 2014 Spring commencement at Oklahoma State University. The award honors graduate students that have demonstrated scholarly achievement, as evidenced by academic performance and discipline-appropriate scholarly contributions, and capture the essence of OSU’s land-grant mission. Ashley was recognized at commencement and in the program, she was also provided special gown adornments, and, led the graduates in the processional/recessional and awarding of the diplomas. Ashley was the only M.S. Marshall. Megan Reidy, a Physiology/Zoology major carried the gonfalon for the College of A&S ceremony.

Kyle Gustafson receives fellowship

Ph.D. student Kyle Gustafson, advised by Dr. Matt Bolek, has received a one-year Ford Foundation Dissertation Fellowship. This year 35 fellowships were awarded. The fellowship, sponsored by the Ford Foundation, is administered by the National Research Council of the National Academies. The Ford Foundation seeks to increase the diversity of the Nation’s college and University faculties by increasing their ethnic and racial diversity, to maximize the educational benefits of diversity, and to increase the number of professors who can and will use diversity as a resource for enriching the education of all students. Kyle (shown left with his family) came to OSU in 2011 after completing a B.S. in Fisheries and Wildlife Biology and an M.S. in Biology at the University of North Dakota. His dissertation project integrates the fields of ecology, toxicology, and parasitology by combining complementary field and laboratory studies, to elucidate the effects of land use and pesticide applications on wildlife communities and parasite transmission. His project focuses on what parasites (Class trematoda) can tell us about wildlife communities and ecosystem health. According to his award letter, Kyle was chosen for this award because of his scholarly competence as well as the promise that he shows for future achievement as a scholar, researcher, and teacher in an institution of higher education. Kyle is the second graduate student in the Department of Zoology to receive an award from the Ford Foundation. Megan Trope (Ron Van Den Bussche Lab) received a 3-year fellowship in 2013.
Karen L. Smith Undergraduate Research Symposium

On 2 May 2014 the Zoology Department held the 4th Karen L. Smith Undergraduate Research Symposium. Karen, who passed away on 2 November 2012 was the senior academic counselor in the Department of Zoology. The symposium was established in November 2012 in recognition of Karen’s tireless efforts to enhance the undergraduate experience - especially those in the Department of Zoology. The symposium provides professional development opportunities for undergraduates in the department. For the Spring symposium there were 19 poster presentations by undergraduates working in the Zoology Department and 1 poster by a student working in the Entomology and Plant Pathology Department. Heather Martin (left - junior biological science major) is the recipient of the Karen L. Smith Undergraduate Research Excellence Award for her research with Dr. Polly Campbell on candidate genes for species discrimination in mice. This award given for the best student presentation at the symposium includes $200 and is made possible by the Karen L. Smith Undergraduate Research Symposium Fund.

Asad Rehman (left) collaborated with Ph.D. student Jared Goos and Dr. Puni Jeyasingh on the metabolic cost of attractiveness in Hyalella amphipods.

Susan Gleason (right) presented results of her work with Ph.D. student Medhavi Ambardar and Dr. Jennifer Grindstaff on effects of temperature and precipitation on wintering Eastern Bluebird populations in Stillwater.
The 2014 Annual Zoology Awards celebration was held in Click Hall at the Conoco Phillips Alumni Center on 28 March 2014. The banquet was well attended by our generous donors, award winners, department members and their families. Award winners are listed below and on the following page.

**Zoology Department Undergraduate Student Awards**

*Outstanding Zoology Sophomore:* Carlie Pearson  
*Outstanding Zoology Junior:* Hannah Kadavy  
*Outstanding Zoology Senior:* Ryan Greenway  
*Outstanding Physiology Senior:* Victoria Hanna  
*Outstanding Biological Sciences Senior:* Lauren Foley  
*Edwin Chappabitty, Jr. MD Scholarship:* Ashley L. Lonetree  
*Dr. G. Michael Steelman Scholarship:* Brandi Nicole Gallaher

Left to right: Victoria Hanna and Dr. Jason Belden. Victoria received the Outstanding Physiology Senior Award.

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Two Students Receive NSF Research Fellowships

Ph.D. student Ashley Love (left), advised by Dr. Sarah Durant and Masters student Kaati Schreier (right) from the Grindstaff lab have both received 3-year graduate research fellowships from the National Science Foundation. Ph.D. student, Bill Mausbach (not pictured) advised by Andy Dzialowski received Honorable mention. The NSF supported program recognizes and supports outstanding graduate students in science, technology, engineering, and mathematics disciplines who are pursuing research-based doctoral degrees. Ashley is originally from Louisa County In central Virginia. She received her undergraduate degree from Virginia Tech with a double major in Biology and Wildlife Science. Ashley arrived at OSU in August 2013. Her project will investigate how maternal exposure to disease impacts offspring variation in immune responses. Ashley will also be examining several mechanisms through which females can manipulate offspring phenotype response to infection. Kaati is from La Crosse, Wisconsin and received an undergraduate degree in Biopsychology from Viterbo University in La Crosse. She arrived at OSU in June of 2013 to work with Jennifer Grindstaff. Kaati’s project will study the potential trade-off between defenses against disease: does an individual have to choose between physically avoiding diseases or mounting a strong immune response? She is also trying to determine if individuals are repeatable in their choice of strategies over time and if there is a hormonal mechanism that links the two strategies. In addition to being a graduate student, Kaati is a 2nd Lieutenant in the United States Army Reserves. She serves as a Human Resources Officer and a platoon leader at a unit in Tulsa, Oklahoma. Kaati received her commission through Army ROTC at the University of Wisconsin: La Crosse in December 2012.
Student and Faculty Award Winners
2014 Annual Zoology Awards

Zoology Graduate Student Society Awards:

Outstanding Masters Student: Rachel E. Eguren
Outstanding Doctoral Student: Priyanka Roy Chowdhury
Best Lunchtime Seminar Presentation:
  Fall - Adam Simpson
  Spring - Lynne Beatty

Margaret S. Ewing Outstanding Mentor Award:
  Dr. Kristen Baum

Zoology Department Graduate Student Awards:

Outstanding Zoology Masters Student: Rachel E. Eguren
Outstanding Zoology Doctoral Student: Reid Morehouse
Wilhm Zoology Teaching Assistant - Masters: Chelsea Baker
Wilhm Zoology Teaching Assistant - Doctoral: Danielle Alba
Waters Grant-in-Aid of Research: Adam Simpson
Bob and Julia Bollinger Field Research Grant: Bill Mausbach
Wilhm Graduate Student Travel Award: Jared Goos
S. L. “Bud” Burks Memorial Graduate Research Award: Kyle Gustafson
Bryan P. Glass Scholarship: Rachel E. Eguren

Left to right: Kyle Gustafson and Dr. Jerry Wilhm. Kyle received the S. L. “Bud” Burks Memorial Graduate Research Award.

Left to right: Rachel E. Eguren and her advisor, Dr. Karen McBee. Rachel received the Outstanding Zoology Masters Student Award, the Bryan P. Glass Scholarship, and the Zoology Graduate Student Society Outstanding Masters Student Award.

Left to right: Reid Morehouse and his advisor, Dr. Michael Tobler. Reid received the Outstanding Zoology Doctoral Student Award.
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

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   - Herbert and Betty Bruneau Zoology Seminar Fund (229873)
   - Dr. Michael Steelman Scholarship (229830)
   - Bryan P. Glass Scholarship/Fellowship (229893)
   - Chappabitty Scholarship (228855)
   - Bob and Julia Bollinger Field Research Grant (228860)
   - Karen L. Smith Undergraduate Research Symposium Fund (2298530)

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