

# AMY L. SKIBIEL, Ph.D.

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## EDUCATION

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- **Ph.D. in Biological Sciences**, August 2012, Auburn University, Auburn, AL. DISSERTATION: *The evolution of milk composition and lactation strategy of the Columbian ground squirrel, Urocyon columbianus*
- **M.S. in Biological Sciences**, May 2007, Auburn University, Auburn, AL. THESIS: *Maternal effects in Columbian ground squirrels*
- **B.S. in Biology**, May 2003, Juniata College, Huntingdon, PA., cum laude

## RESEARCH AND PROFESSIONAL EXPERIENCE

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- 2012-present Postdoctoral research and teaching fellow, Harvard University
- 2004-2012 Teaching assistant, Auburn University
- Summer 2007 Field technician, Environmental Solutions and Innovations, Inc.
- 2002-2003 Undergraduate independent research, Juniata College
- Summer 2002 Undergraduate research scientist, Research Experience for Undergraduates (REU), Pepperdine University
- 2002 Teaching assistant, Juniata College

## PUBLICATIONS

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### *Peer-reviewed publications:*

- **Skibiel, A. L.**, J. R. Speakman, and W. R. Hood. In press. *Testing the prediction of energy allocation decisions in the evolution of life history tradeoffs*. *Functional Ecology*.
- **Skibiel, A. L.**, L. M. Downing, T. J. Orr, and W. R. Hood. In press. *The evolution of the nutrient composition of mammalian milks*. *Journal of Animal Ecology*.
- **Skibiel, A. L.** and W. R. Hood. 2013. *Milk composition in a hibernating rodent, the Columbian ground squirrel, Urocyon columbianus*. *Journal of Mammalogy* 94(1): 146-154.
- T. J. Karels, F. S. Dobson, H. S. Trevino, **A. L. Skibiel**. 2009. *Testing causal structure in the biogeography of avian extinctions on oceanic islands*. *Journal of Biogeography* 36: 1614-1617.
- **Skibiel, A. L.**, F. S. Dobson, J. O. Murie. 2009. *Maternal influences on reproduction in two populations of Columbian ground squirrels*. *Ecological Monographs* 79(2): 325-341.
- T. J. Karels, F. S. Dobson, H. S. Trevino, **A. L. Skibiel**. 2008. *The biogeography of avian extinctions on oceanic islands*. *Journal of Biogeography* 35: 1106-1111.
- Trevino, H. S., **A. L. Skibiel**, T. J. Karels, F. S. Dobson. 2008. *Importance of causal analysis of threats to oceanic avifaunas: Reply to Blackburn et al.* *Conservation Biology* 22(2): 495-497.
- Trevino, H. S., **A. L. Skibiel**, T. J. Karels, F. S. Dobson. 2007. *Threats to avifauna on oceanic islands*. *Conservation Biology* 21(1): 125-132.

- **Skibiell, A. L.**, H. S. Trevino. 2007. *Comparison of several types of enrichment for captive felids*. Zoo Biology 26: 371-381.
- Buonaccorsi, V. and **A. Skibiell**. 2005. A '*striking*' demonstration of the Poisson distribution. Teaching Statistics 27(1): 8-10.

**Published abstracts (not peer-reviewed):**

- **Skibiell, A.L.**, Speakman, J., Hood, W.R. 2013. *The costs of current reproduction are not traded against maternal survival or subsequent reproductive performance in the Columbian ground squirrel*. Integrative and Comparative Biology.
- **Skibiell, A. L.**, Hood, W. R. 2012. *Milk matters: offspring survival in Columbian ground squirrels is affected by nutrient composition of milk*. Proceedings of the Comparative Nutrition Society.
- **Skibiell, A. L.**, Downing, L.M., Orr, T. J., Hood, W. R. 2012. *The evolution of the nutrient composition of mammalian milks*. Proceedings of the Comparative Nutrition Society.
- **Skibiell, A. L.**, Hood, W. R. 2012. *Building better babies: impact of individual variation in milk composition on differential reproductive performance of Columbian ground squirrels*. Integrative and Comparative Biology.
- Ramirez, M., **Skibiell, A.**, Hood, W. 2012. *Lactating Columbian ground squirrels increase nutrient absorption without altering digesta retention*. Integrative and Comparative Biology.
- **Skibiell, A. L.**, Hood, W. R. 2011. *Temporal and inter-individual variation in milk composition in a free-ranging, hibernating rodent*. Integrative and Comparative Biology.
- **Skibiell, A. L.** and W. R. Hood. 2010. *Temporal and inter-individual variation in milk composition in a free-ranging, hibernating rodent*. Proceedings of the Comparative Nutrition Society.
- **Skibiell, A. L.**, Kats, L. B., Vandergon, T. L. 2003. *Microsatellite allele composition differs significantly between two populations of the California newt, Taricha torosa, in the Santa Monica Mountains*. Integrative and Comparative Biology.

## SEMINARS AND PRESENTATIONS

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**Invited seminars:**

- *Maternal effects and lactation effort in the Columbian ground squirrel*. Pepperdine University, Malibu, CA, February 5, 2013.

**Presentations (\*presenter):**

- **Skibiell, A.L.**, Speakman, J., Hood, W.R.\* *The costs of current reproduction are not traded against maternal survival or subsequent reproductive performance in the Columbian ground squirrel*. Oral presentation, Society for Integrative and Comparative Biology annual meeting, San Francisco, CA, January 3-7, 2013.
- **Skibiell, A. L.**, Hood, W. R.\* *Milk matters: offspring survival in Columbian ground squirrels is affected by nutrient composition of milk*. Oral presentation, Comparative Nutrition Society symposium, Pacific Grove, CA, July 18-23.
- **Skibiell, A. L.**, Downing, L.M., Orr, T. J., Hood, W. R.\* 2012. *The evolution of the nutrient composition of mammalian milks*. Poster presentation, Comparative Nutrition Society symposium Pacific Grove, CA, July 18-23.
- **Skibiell, A. L.\***, Hood, W. R. *Building better babies: impact of individual variation in milk composition on differential reproductive performance of Columbian ground squirrels*. Oral presentation, Society for Integrative and Comparative Biology annual meeting, Charleston, SC, January 3-7, 2012.

- Ramirez, M.\*, **Skibiell, A.**, Hood, W. *Lactating Columbian ground squirrels increase nutrient absorption without altering digesta retention*. Poster presentation, Society for Integrative and Comparative Biology annual meeting, Charleston, SC, January 3-7, 2012.
- **Skibiell, A. L.\***, Hood, W. R. *Building better babies: composition of mother's milk influences survival of juvenile Columbian ground squirrels*. Oral presentation, Graduate Student Council Research Symposium, Auburn, AL, April 2, 2011.
- **Skibiell, A. L.\***, Hood, W. R. *Building better babies: composition of mother's milk influences survival of juvenile Columbian ground squirrels*. Oral presentation, Southeastern Ecology and Evolution Conference, Auburn, AL, March 25-27, 2011.
- **Skibiell, A. L.\***, Hood, W. R. *Building better babies: composition of mother's milk influences survival of juvenile Columbian ground squirrels*. Oral presentation, Graduate Student Council Research Forum, Auburn, AL, March 1-3, 2011.
- **Skibiell, A. L.\***, Hood, W. R. *Temporal and inter-individual variation in milk composition in a free-ranging, hibernating rodent*. Poster presentation, Society for Integrative and Comparative Biology annual meeting, Salt Lake City, UT, January 3-7, 2011.
- **Skibiell, A. L.\***, Hood, W. R. *Temporal and inter-individual variation in milk composition in a free-ranging, hibernating rodent*. Poster presentation, Comparative Nutrition Society symposium, Tucson, AZ, August 6-10, 2010.
- **Skibiell, A. L.\***, Dobson, F. S., Murie, J. O. *Maternal influences on reproduction in two populations of Columbian ground squirrels*. Poster presentation, International Behavioral Ecology Congress, Ithaca, NY, August 9-15, 2008.
- **Skibiell, A. L.\***, Dobson, F. S., Murie, J. O. *Maternal influences on reproduction in Columbian ground squirrels*. Oral presentation, Graduate Student Council Research Forum, Auburn University, AL, April 2, 2008.
- **Skibiell, A. L.\***, Trevino, H.\* *Comparison of feeding enrichments on felids at the Montgomery Zoo*. Poster presentation, Zoological Association of America annual meeting, Montgomery, AL, October 12-15, 2005.
- **Skibiell, A.L.\***, Kats, L. B., Vandergon, T. L. *Microsatellite allele composition differs significantly between two populations of the California newt, Taricha torosa, in the Santa Monica Mountains*. Poster presentation, Society for Integrative and Comparative Biology annual meeting, Toronto, Ontario, January 4-8, 2003.

## GRANTS AND FELLOWSHIPS

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- Post-doctoral fellowship, Comparative Lactation Lab, Harvard University, 2012
- NSF EPSCOR/Auburn University Cellular and Molecular Biosciences Peaks of Excellence Summer Research Fellowship, 2012
- Auburn University, Department of Biological Sciences Kenneth Ottis Distinguished Graduate Fellowship, 2012
- **Funded.** Impacts of maternal energy expenditure during lactation on maternal and offspring survival in the Columbian ground squirrel. American Society of Mammalogists Grant-in-Aid of Research, 2011
- Dr. Mary Ellen Mazey Annual Graduate Fellowship for Women in Science, 2010
- Not funded. Hormonal regulation of nutrient transfer during lactation: impacts on life history tradeoffs and offspring fitness. NSF Doctoral Dissertation Improvement Grant, Division of Environmental Biology, Evolutionary Processes Cluster, 2010

- **Funded.** Maternal investment and reproductive performance in Columbian ground squirrels. Auburn University Graduate Research Award, 2010
- **Funded.** Effects of maternal investment in milk quality on juvenile Columbian ground squirrels. Sigma Xi Grant-in-Aid of Research, 2009
- **Funded.** Effects of maternal investment in milk composition on juvenile Columbian ground squirrels. Sigma Xi Grant-in-Aid of Research, 2008
- **Funded.** Maternal effects in Columbian ground squirrels. Auburn University Graduate Research Award, 2006

## TEACHING EXPERIENCE

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### **Laboratories:**

- Human Evolutionary Anatomy and Physiology, Harvard University, fall 2012
- Mammalian Physiology, Auburn University, fall and spring 2004-2012
- Comparative Anatomy, Auburn University, summer 2006
- Anatomy and Physiology I, Auburn University, summer 2005
- Biostatistics, Juniata College, fall 2002

### **Guest lectures:**

- Milk synthesis in the context of life history strategies for Building Babies, 3-hr discussion, spring 2013
- Muscle anatomy and physiology, appendicular skeletal system, and nervous system lectures for Anatomy and Physiology, 5 lectures, summer 2012
- Skeletal muscle anatomy and physiology lecture for Anatomy and Physiology, 2 lectures, fall 2011
- Appendicular skeletal muscle lecture for Anatomy and Physiology, 2 lectures, fall 2011
- Renal physiology lecture for Anatomy and Physiology, 1 lecture, spring 2011

## MENTORING EXPERIENCE

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- 3 Undergraduate research students at Harvard University
- 3 Undergraduate research students at Auburn University
  - 1 Honor's thesis: Matt Ramirez, " Food intake, mean retention time, and digestibility in Columbian ground squirrels (*Urocitellus columbianus*) during lactation"
- 6 Undergraduate field assistants

## PROFESSIONAL DEVELOPMENT

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- Life Sciences Education undergraduate mentoring workshops, Harvard University, 2013
- Bok Center teaching conference, Harvard University, 2012

## ACADEMIC HONORS AND AWARDS

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- Student marshal for the College of Graduate Studies, Auburn University, 2012
- Graduate Student Council Research Symposium, second place prize for oral presentations, 2011
- Graduate Student Council Research Forum, top 30% of oral presentations, 2011

- Best poster in the Division of Ecology and Evolution, Society for Integrative and Comparative Biology annual meeting, Salt Lake City, UT, 2011
- Margaret McNeal Arant Memorial Award in Zoology, 2009
- Graduate School's Outstanding Doctoral Student Award, 2009
- Department of Biological Sciences Graduate Teaching Assistant Award, 2008
- Graduate Student Council Research Forum, third place prize for science presentation, 2008
- Auburn University Graduate Student Travel Award, 2007
- Dr. Andrew B. and Maria F. Brumbaugh Science Prize, 2003

## **PROFESSIONAL SOCIETIES**

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- Comparative Nutrition Society, 2010-present
- American Society of Mammalogists, 2009-present
- International Society for Behavioral Ecology, 2008-2009
- American Association for the Advancement of Science, 2007-present
- Society for Integrative and Comparative Biology, 2003-2004, 2007-present

## **SERVICE**

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### ***University service:***

- Biological Sciences Graduate Student Association, Auburn University, 2008-2010, President
- Graduate Recruiting Committee, Auburn University, 2005-2008, Graduate student representative
- Behavior, Ecology, and Evolution Reading Society, Auburn University, 2005-2006, Coordinator

### ***Academic community:***

#### Journals for peer review

- Ecology
- Zoo Biology

### ***Community service:***

- Society for Women in Sciences and Mathematics Symposium, 2010, Panelist
- Spread the Gnu's, 2009, Fundraiser organizer for local bookstore
- AU Forest Ecology Preserve, Creepy Critters, bat display, 2009