

# Amber A. Burgett

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## Education

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- PhD candidate**, Washington University in St. Louis 2006-present  
Advisor: Dr. Jonathan Chase
- Bachelor of Science** in Biology: minors in Chemistry and Spanish May 2006  
Advisor: Dr. Geoffrey R. Smith

## Research Experience

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- Dissertation research:** Dr. Jon Chase **2006-present**  
*Impacts of demography and habitat availability on amphibian abundances in metacommunities.*
- Laboratory rotation:** Aquatic Chemistry Lab, Dr. Dan Giammar, **Fall 2007**  
*Analyzing alkalinity, nutrient concentration, and heavy metal concentrations in Missouri fishless ponds.*
- Laboratory rotation:** Dr. Tiffany Knight **Spring 2006**  
*Meta-analysis of amphibian population matrices examining relationships between longevity and elasticity to juvenile parameters.*
- Senior Research Thesis**, Denison University **2005-2006**  
*Behavioral responses of *Plethodon cinereus* salamanders towards conspecifics and centipedes.*  
Advisor: Dr. Geoff Smith
- NSF, Research Experience for Undergraduates** **2005**  
*Examining the impacts of multiple shared prey species on intraguild predation interactions.*  
Advisor: Dr. Patrick Crumrine
- Howard Hughes Medical Institute**, ERES, Denison University **2004**  
*Effects of a Fish Predator on the Activity Level of *Rana catesbeiana* tadpoles.*  
Advisor: Dr. Geoff Smith
- Howard Hughes Medical Institute**, ERES, Denison University **2003**  
*Effects of nutrient enrichment, density and species composition on anuran larvae.*  
Advisor: Dr. Geoff Smith

## Publications

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- Smith, G.R., **A.A. Burgett**, K.G. Temple, K.A. Sparks, and K.E. Winter. 2008. The ability of three species of tadpoles to differentiate among potential fish predators. *Ethology* 114:701-710.
- Burgett, A.A.**, C.D. Wright, G.R. Smith, D.T. Fortune, and S.L. Johnson. 2008. Impact of ammonium nitrate on Wood Frog (*Rana sylvatica*) tadpoles: Effects on survivorship and behavior. *Herpetological Conservation and Biology* 2: 29-34.
- Smith, G.R., **A.A. Burgett**, K.A. Sparks, K.G. Temple, and K.E. Winter. Diel Patterns in Bullfrog (*Rana catesbeiana*) Tadpole Activity: a Mesocosm Experiment on the Effects of Density and Bluegill Sunfish (*Lepomis macrochirus*) Presence. *Herpetol. Journal* 17: 199-203
- Smith, G.R., and **A.A. Burgett**. 2005. Effects of three organic wastewater contaminants on American toad, *Bufo americanus*, tadpoles. *Ecotoxicology* 14: 477-482.
- Smith, G.R., **A.A. Burgett** and J.E. Rettig. Effects of nutrient enrichment and background

community composition on aquatic communities: a mesocosm experiment. In prep  
**Burgett, A.A.** and G.R. Smith. Behavioral responses of *Plethodon cinereus* salamanders towards conspecifics and centipedes. In prep

## Posters and Presentations

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- Burgett, A.A.** and J.M. Chase. 2008. Interactions between demography and habitat availability determine abundances in amphibian metacommunities. Contributed Oral session, Ecological Society of America, Annual meeting
- Biro, E.G., **A.A. Burgett**, and J.M. Chase. 2007. Predators with ontogenetic niche shifts: Interactive effects of adult and larval predation of dragonflies on pond community structure. Poster presentation, Ecological Society of America meeting, San Jose, CA.
- Chase, J.M. and **A.A. Burgett**. 2007. Amphibians in fragmented landscapes: Effects of pond density on salamander abundance and their role as top predators in food webs, with potential implications for conservation. Invited talk, Understanding Agriculture's Effects on Amphibians and Reptiles in a Changing World St. Louis, Missouri
- Burgett, A.A.** and P. W. Crumrine. 2006. Impacts of shared prey density and diversity on intraguild predation interactions. Poster presentation, Ecological Society of America meeting, Memphis, TN.
- Burgett, A.A.** 2006. Examining the impacts of multiple prey species on intraguild predation. Denison University chapter meeting of Sigma Xi, Granville, OH, talk.
- Burgett, A.A.** 2006. Behavioral responses of *Plethodon cinereus* salamanders towards potential competitors. Poster presentation, Ohio Academy of science meeting, Dayton, OH.
- Smith, G.R. and **A.A. Burgett**. 2004. Effects of productivity and community composition on experimental tadpole communities. Poster presentation, Ecological Society of America meeting, Portland, OR.

## Honors

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| 2008         | NSF Graduate Research fellowship honorable mention        |
| 2006         | ESA/NSF Undergraduate Travel Award                        |
| 2006-present | <i>Sigma Xi</i> : National scientific research society    |
| 2005-present | <i>Sigma Delta Pi</i> : National Spanish honorary society |
| 2005-2006    | Denison University, Biology Department Senior Fellow      |

## Professional Service

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| 2008         | Washington University, Ecology, Evolution, and Population biology department student seminar series coordinator |
| 2007         | Women in Science day, Washington University, led ecology activity   |
| 2006-present | Young Scientist Program, visit local underprivileged high schools to teach ecology                              |

## Teaching Experience

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|             | Teaching Assistant: Washington University in St. Louis                                   |
| 2008 fall   | <b>Community Ecology</b><br>Guest lecturer, discussion leader, designed computer labs    |
| 2008 summer | <b>Master's course, Field ecology</b><br>Lecture, field lab organization and development |
| 2008 spring | <b>Introduction to Ecology, Biology</b><br>Guest lecturer, assisted with test design     |
|             | Teaching Assistant: Denison University   |
| 2005        | <b>Ecology and Evolution</b><br>lab set up   |
| 2006        | <b>General Biology</b>   |

## **Academic Memberships**

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2007- present American Society of Ichthyologists and Herpetologists  
2006-present Ecological Society of America, Student Member  
2005-2007 Ohio Academy of Science