

# Hayley Gillespie

## Curriculum Vitae



University of Texas at Austin  
Section of Integrative Biology  
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### Education

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2011	<i>PhD candidate, University of Texas at Austin, Graduate Program in Ecology, Evolution &amp; Behavior. Degree expected spring 2011. Thesis title: Behavioral ecology of the endangered Barton Springs salamander (Eurycea sosorum) with implications for conservation and management.</i>
2005	University of Utah, special course in stable isotope ecology methods. (Salt Lake City, UT)
2003	Austin College, BA Biology ( <i>cum laude</i> ); minors Environmental Studies, Fine Art (Sherman, TX)
1999-2000	Texas A&M University at Galveston (Galveston, TX)

### Employment

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2010-present	<i>Graduate Research Assistant, Project Title: Quantifying ecosystem integrity under climate change using meta-analysis, PI: C. Parmesan, University of Texas at Austin (Austin, TX)</i>
Summer 2010	<i>Program Faculty, Department of Biology, Texas State University (San Marcos, TX)</i>
2005-2010	<i>Environmental Scientist Associate, (science diving &amp; habitat restoration for the Barton Springs Salamander project) City of Austin Watershed Protection Department (Austin, TX)</i>
2004-2010	<i>Teaching Assistant, University of Texas at Austin (Austin, TX)</i>
2003-2004	<i>Middle School Science Faculty (7<sup>th</sup> and 8<sup>th</sup> grade), St. Alcuin Montessori School (Dallas, TX)</i>
2002-2003	<i>Student Employee, Austin College Department of Biology (Sherman, TX)</i>
2002/3	<i>Summer Research Assistant, Austin College Department of Biology (Sherman, TX)</i>
Spring 2002	<i>Undergraduate Teaching Assistant, Austin College Department of Biology (Sherman, TX)</i>
2001	<i>Freshwater Aquatic Systems Staff, Planet Pet (Bedford, TX)</i>
1999-2000	<i>Marine Laboratory Intern, National Resource Center for Cephalopods (Galveston, TX)</i>

### Teaching Experience

#### Teaching Assistantships at the University of Texas at Austin (2004-2010)

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4 semesters	<b>Field Ecology Laboratory (Bio 373L) with Dr. Lawrence Gilbert, Brackenridge Field Laboratory</b> 12-15 students • lectures on scientific writing, statistical analyses and oral presentations • managed logistics of lab and field activities • advised students on independent research • graded weekly 6-12pg labs
3 semesters	<b>Conservation Biology (Bio 375) with Dr. Camille Parmesan</b> 20-30 students • lecture on restoration ecology • managed discussion sessions (prepared practical exercises to accompany lectures, moderated discussions) • supervised independent writing assignment
5 semesters	<b>Introductory Biology (diversity &amp; ecology) for majors (Bio 311D &amp; 213) with Dr. Raymond Neubauer, Dr. Donald Levin, Dr. Sharon Jasper</b> 80-120 students • led weekly discussion sessions (15-30 students each) • graded exams and assignments

#### Student Advising at the University of Texas at Austin

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2009	<i>Graduate Mentor, National Science Foundation Research Experience for Undergraduates (REU) Program, Environmental Science Institute</i>
2007	<i>Graduate Mentor, Intellectual Entrepreneurship Pre-Graduate School Internship</i> This program connects undergraduates with graduate students in their field of study to explore those unique aspects of graduate study that make it distinct from the undergraduate experience.
2005	<i>Supplemental Instruction Leader, Sanger Learning &amp; Career Center</i> This program aims to improve undergraduate student performance in historically difficult classes by offering voluntary discussion sections led by specially trained graduate students.

### Teaching Positions at Other Institutions

2003-2004      *Middle School Science Faculty*, St. Alcuin Montessori School (Dallas, TX)  
40 students • sole science instructor on a five-member middle school faculty • instructed in all science disciplines • managed lab facilities • developed two-year rotating science curriculum

Spring 2002      *Undergraduate Ecology Teaching Assistant* with Dr. Peter Schulze, Austin College (Sherman, TX)

### Professional Development in Teaching (courses taken)

2007      *Evaluating Student Learning in Large Classes: Designing the Multiple-Choice Exam*  
*Assessing Your Teaching*  
*Designing Effective Lectures for Learning*  
Advancing Students' Professional Excellence with Certificates in Teaching (ASPECTS) Series,  
Center for Teaching and Learning, University of Texas at Austin (Austin, TX)

2004      *New Graduate Student Instructor Conference*, Division of Instructional Innovation and Assessment,  
University of Texas at Austin (Austin, TX)

2003      *Beginning Teacher Institute*, Independent Schools Assoc. of the Southwest (Fort Worth, TX)  
*Classroom Connect Conference* (Philadelphia, PA)

### Undergraduate Students Supervised

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Number of independent research course credit hours is denoted by superscript.

Summer 2009      Kofi Amoako, National Science Foundation Research Experience for Undergraduates (REU)  
program, University of Texas Environmental Science Institute. Project title: *Changes in Barton  
Springs salamander (Eurycea sosorum) diet using stable isotope analysis.*

2009-2010      Elena Konovalova<sup>3</sup>, Project title: *Diet of the Barton Springs salamander.*

Spring 2009      Travis Bartholomew<sup>3</sup>, Project title: *Community dynamics in autotrophic and light-limited streams of  
central Texas: a model for habitat protection of central Texas Eurycea salamanders.*

Spring 2009      Joelle Klist<sup>1</sup>, Deepal Shah<sup>1</sup>, Alisa Coleman  
2008      Stephanie Bui, Kay Yindeemark

2006-2009      Drew Davis<sup>3</sup>, Project title: *Feeding ecology of Eurycea sosorum.*

Fall 2006      Andrew Codlin

### Publications

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#### Peer Reviewed Publications

Goldsmith S, Gillespie H and Weatherby C. 2007. Restoration of Hawaiian montane wet forest: endemic  
longhorned beetles (Cerambycidae: *Plagithmysus*) in koa (Fabaceae: *Acacia koa*) plantations and in intact forest.  
*The Southwestern Naturalist* 52:356–363

Schulze PC, Gillespie JH, Womble R and Silen A. 2006. The effect of suspended sediments on Lake Texoma  
*Daphnia*: Field distributions and in-situ incubations. *Freshwater Biology* 51: 1447-1457

#### Book Reviews

Gillespie JH. 2006. Review: Bruce A. Bohm. 2004. Hawaii's Native Plants. *Sida, Contributions to Botany* 22: 1254

Gillespie JH. 2004. Review: James J. Cozine, Jr. 2004. Saving the Big Thicket: From Exploration to Preservation,  
1685-2003. University of North Texas Press, Denton, TX. *Sida, Contributions to Botany* 21: 1244-1245

### Manuscripts in Preparation

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The following manuscripts comprise my dissertation.

Anticipated submission for journal publication November 2010-January 2011.

Gillespie H, Parmesan C. *In Prep.* The relative importance of olfactory, bioelectric and visual cues to the detection  
of novel predators by the Barton Springs Salamander (*Eurycea sosorum*). [will submit to *Behavioral Ecology*]

Gillespie H. *In Prep.* Temporal and individual diet variation in the Barton Springs Salamander (*Eurycea sosorum*): an  
application of stable isotope analysis to conservation of endangered species. [will submit to *Conservation Biol.*]

Gillespie H, Parmesan C, Dries L. *In Prep.* Dynamics of four populations of Barton Springs Salamander (*Eurycea  
sosorum*) in response to environmental variables. [will submit to *Conservation Biology*]

The following are collaborative projects with undergraduates tangential to my dissertation.  
Anticipated submission for journal publication spring and summer 2011.

Gillespie H, Epp K, Davis DR, Gabor C. *In Prep*. Comparison of responsiveness of two species of neotenic *Eurycea* salamanders in laboratory behavioral trials: recommendations for future studies. [will submit to *Copeia*]

Gillespie H, Davis DR, Konovalova E. *In Prep*. A comparison of Hess-type and Dendy-type benthic samplers to estimate aquatic invertebrate population dynamics in headwater springs. [will submit to *Freshwater Biology*]

Gillespie H, Bartholomew T, Konovalova E, Amoako K. *In Prep*. The role of autotrophic and heterotrophic respiration in nutrient-enriched light-abundant vs. light-limited headwater springs. [will submit to *Hydrobiologia*]

### **Grants & Fellowships**

Gillespie is PI on all grants & fellowships.

2010	Texas State University Summer Pre-Doctoral Fellowship (\$11,000) Bee Cave Ecology Endowment Award, UT Austin (\$1,200) Terrell H. Hamilton Endowed Graduate Fellowship (\$1470)
2009	Barton Springs Salamander Conservation Fund Research Grant, City of Austin & Austin Community Foundation (\$14,000) Bee Cave Ecology Endowment Award, UT Austin (\$1,200)
2008	Howard McCarley Student Research Award, Southwestern Association of Naturalists (\$1,000) Zoology Scholarship Endowment for Excellence, UT Austin (\$2,000)
2007	Dorothea Bennett Memorial Graduate Fellowship, UT Austin (\$900) Intellectual Entrepreneurship Pre-Grad Mentor Grant, UT Austin (\$150) Terrell H. Hamilton Endowed Graduate Fellowship, UT Austin (\$1,400)
2006	Dorothea Bennett Memorial Graduate Fellowship, UT Austin (\$1,600)
2005	Sigma Xi Grant-in-Aid of Research (\$950) Dorothea Bennett Memorial Graduate Fellowship, UT Austin (\$200) Zoology Scholarship Endowment for Excellence, UT Austin (\$1,820)

### **Honors & Awards**

2008	Student Registration Award, 6 <sup>th</sup> International Conference on Applications of Stable Isotope Techniques to Ecological Studies, Honolulu, HI (\$500)
2006	Student Travel Award, Southwestern Association of Naturalists (\$500)
2003	Cum Laude Graduate (GPA 3.687), Austin College
2003	Priddy Charitable Trust Summer Research Award, Austin College
2002	Brittain Memorial Biology Student Research Award, Austin College
2001-2003	Mary Jo Detherage Scholarship, Austin College
2000-2003	Sara Bernice Moseley Scholarship, Austin College
1999-2003	Ridglea Presbyterian Church Scholarship, Fort Worth, Texas
1999-2000	Aggie Scholar (GPA 4.0), Texas A&M University at Galveston

### **Scientific Presentations**

2010	7 <sup>th</sup> International Conference on Applications of Stable Isotope Techniques to Ecological Studies, <i>Temporal and individual diet in the Barton Springs salamander: an application of stable isotope analysis to conservation of endangered species</i> . University of Fairbanks (Fairbanks, AK)
2009	Southwestern University. <i>The ecology of Texas salamanders</i> . (Georgetown, TX)
2008	Austin College, <i>Keynote Speaker for Science &amp; Math Preview Weekend</i> . (Sherman, TX)
2007	Texas Herpetological Society Symposium on Texas Salamanders. <i>Assessing temporal diet variation in the Barton Springs Salamander (Eurycea sosorum) using stable isotope techniques</i> . University of Texas at Austin, J.J. Pickle Research Campus (Austin, TX)
2006	53 <sup>rd</sup> Annual Meeting of the Southwestern Association of Naturalists. <i>Use of stable isotopes to investigate resource use and predation in central Texas aquatic salamanders</i> . Universidad de Colima (Colima City, Colima, Mexico)

- 2005 Integrative Biology Graduate Student Symposium. *Feeding ecology of a secretive species using stable isotope techniques*. University of Texas at Austin (Austin, TX)
- 2004 51st Annual Meeting of the Southwestern Association of Naturalists. *Assessing restoration of Hawaiian montane wet forest: frequency and abundance of longhorned beetles, a food source for the endangered 'akiapola'au*. University of Texas at San Antonio (San Antonio, TX)
- 2003 Austin College. *Ecology of Longhorned Beetle Larvae in Hawaiian Montane Wet Forest*. (Sherman, TX)
- 2002 Austin College. *Effects of Turbidity on Daphnia Density in Lake Texoma*. (Sherman, TX)
- 2000 Austin College. *Lights On, Nobody Home: Proposal to Change Electricity Use at Austin College*.

#### **Public Outreach Seminars**

- 2010 Austin Herpetological Society. *The Texas Salamanders*. (Austin, TX)
- 2009 Science Under The Stars public lecture series. *Texas Salamander Extravaganza*. University of Texas at Austin, Brackenridge Field Laboratory (Austin, TX)

#### **Posters**

- 2009 94<sup>th</sup> Annual Meeting of the Ecological Society of America. (Albuquerque, NM)  
*Individual and seasonal variation in the diet of the Barton Springs salamander (Eurycea sosorum)*.
- 2008 6<sup>th</sup> International Conference on Applications of Stable Isotope Techniques to Ecological Studies.  
*Temporal and individual diet in the Barton Springs salamander: an application of stable isotope analysis to conservation of endangered species*. University of Hawai'i (Honolulu, HI)
- 2003 National Conference for Undergraduate Research. *Ecology of Longhorned Beetle Larvae in Hawaiian Montane Wet Forest*. University of Utah (Salt Lake City, UT)

#### **Workshops Organized**

- 2010 7<sup>th</sup> International Conference on Applications of Stable Isotope Techniques to Ecological Studies  
*Bayesian Stable Isotope Mixing Models* [organizer] University of Fairbanks (Fairbanks, AK)
- 57<sup>th</sup> Annual Meeting of the Southwestern Association of Naturalists  
*Creating and Perfecting a Curriculum Vitae for the Biological Sciences* [organizer & speaker]  
Texas Tech University Llano River Field Station (Junction, TX)
- 2009 56<sup>th</sup> Annual Meeting of the Southwestern Association of Naturalists  
*How to Write & Publish a Scientific Paper* [organizer & speaker]  
Universidad Autónoma de Nuevo León (Monterrey, Nuevo León, Mexico)
- 2008 55<sup>th</sup> Annual Meeting of the Southwestern Association of Naturalists  
*Applying for Funding as Students: Opportunities and Strategies* [organizer & speaker]  
University of Memphis (Memphis, TN)
- 2007 54<sup>th</sup> Annual Meeting of the Southwestern Association of Naturalists  
*Choosing your Study System & the Wildlife Permitting Process* [organizer & speaker]  
Tarleton State University (Stephenville, TX)
- 2006 53<sup>rd</sup> Annual Meeting of the Southwestern Association of Naturalists  
*Tips for International Students Applying to Graduate Programs in the US* [co-organizer]  
Universidad de Colima (Colima City, Colima, Mexico)

#### **Professional Service**

##### **Academic**

- 2010-2013 *Board of Governors*, Southwestern Association of Naturalists
- 2006-2010 *Student Advisory Committee*, Southwestern Association of Naturalists (Member 2006-07, Chair 2007-09, Co-Chair 2009-10)
- 2009 *Co-Director*, Eco-Photo Festival, 94<sup>th</sup> Annual Meeting of the Ecological Society of America, ESA Student Section (Albuquerque, NM)

##### **Community**

- 2008-2010 *Outreach Docent* (for K-12 school groups), Barton Springs (Austin, TX)
- 2008-2010 *Science Fair Judge*, Forest Trail Elementary School
- 2001-2003 *Volunteer*, Hagerman National Wildlife Refuge
- 2000 *Volunteer*, Texas Marine Mammal Stranding Network (Galveston, TX)

#### **Membership in Professional Societies**

Ecological Society of America, Society for Conservation Biology, Southwestern Association of Naturalists, Texas Herpetological Society, EuryceAlliance (founder, 2010)