

CONTACT INFORMATION

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Business Address:

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EDUCATION

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|--------------------|--|
| 2009 (anticipated) | Ph.D. in Entomology, UGA (4.00/4.00 GPA)<br>Major professor: Dr. Joseph V. McHugh                    |
| 2002               | B.S. in Zoology, Entomology emphasis, BYU (3.60/4.00 GPA)<br>Major professor: Dr. Michael F. Whiting |

RELEVANT COURSES

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*Brigham Young University:*

|                  |                                    |                   |
|------------------|------------------------------------|-------------------|
| Cell Biology     | Insect Morph/Classification        | Statistics        |
| Human Physiology | Aquatic Entomology                 | Field Entomology  |
| Microbiology     | Invertebrate/Vertebrate Strategies | Ecology           |
| Evolution        | Inorganic/Organic Chemistry        | Molecular Biology |
| Genetics         | Phylogenetic Systematics           |                   |

*University of Georgia:*

|                           |                     |                      |
|---------------------------|---------------------|----------------------|
| Principles of Systematics | Bioinformatics      | Genome Evolution     |
| Molecular Systematics     | Insect Morphology   | Insect Taxonomy      |
| Mycology                  | Insect Physiology   | Molecular Entomology |
| Perl for Bioinformatics   | Coleoptera Taxonomy | Molecular Evolution  |

EMPLOYMENT, RESEARCH & TEACHING EXPERIENCE

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|------|--|
| 2008 | <b>Research Assistant, Dr. Adam Slipinski, CSIRO</b><br><u>Responsibilities:</u> constructed morphological matrix including adult and larval characters (152 total characters: 108 adult, 44 larval). Score characters using the above matrix for a broad sampling of cucujoid and outgroup taxa (ca. 130 specimens). Duration: one month. |
| 2006 | <b>Teaching Assistant, Insect Taxonomy, Entomology 6010, Dr. Joseph McHugh, UGA</b><br><u>Responsibilities:</u> instruct laboratory (insect morphology, identification of insect orders and approx. 200 families), conduct collecting trips, construct and administer exams, grade collections. (TA evaluation score = 99.6%)              |

- 2005 **Co-Teaching Assistant, Integrated Pest Management, Entomology 4740/6740, Dr. John All, UGA**  
Responsibilities: prepare laboratory experiments (inoculate cotton plants with pests), prepare materials for lab and lecture.
- 2005 **Co-Teaching Assistant, Pesticide Management and Utilization, Entomology 4250/6250, Dr. John All, UGA**  
Responsibilities: prepare laboratory experiments (inoculate cotton plants with pests), prepare materials for lab and lecture.
- 2003-present **Graduate Research Assistant, Dept. Entomology, Dr. Joseph V. McHugh, UGA**  
Responsibilities: collect, mount, curate insect specimens (pinned, spread, alcohol collections); construct, curate, and coordinate beetle DNA tissue bank; assist others with phylogenetic software and analysis.
- 2003 **Teaching Assistant, Intro. Entomology, Entomology 4000/6000, Dr. Michael Strand, UGA**  
Responsibilities: instruct laboratory (basic insect morphology and identification of insect orders and approx. 100 families), constructed PowerPoint presentations currently used for laboratory lectures, conduct collecting trips, construct and administer exams, grade collections. (TA evaluation score = 93.9%)
- 2002-2003 **Research Associate, Dr. Michael F. Whiting, Dept. Integrative Biology, BYU**  
Responsibilities: manage Insect Genomics lab, purchase supplies, assist in managing grants, train and mentor graduate and undergraduate students in molecular lab techniques and phylogenetic applications, head-up or assist with various research projects (Flea Database, Phasmatodea project, Beetle project, Mecoptera project, Erotylid project, Genomic Insect Tissue Bank).
- 2001 **Genomics Lab Technician/Research Assistant, Dr. Ward C. Wheeler, American Museum of Natural History**  
Responsibilities: perform DNA extractions, PCR and sequencing reactions, assemble and edit sequence fragments, generate phylogenetic data set for Collembola project.
- 1999-2002 **Molecular Lab Technician/Research assistant, Dr. Michael F. Whiting, BYU**  
Responsibilities: perform DNA extractions, PCR and sequencing reactions, assemble and edit sequence fragments, generate phylogenetic data sets, perform field work, curate Genomic Insect Tissue Bank.
- 2000 **Teaching Partnership Undergraduate, Faculty Center, BYU**  
Description: in an effort to improve a few courses across campus, the Faculty Center selected one senior faculty member, junior faculty member, graduate student and undergraduate within each department to work together to improve a course taught in their respective department. I was chosen to be the undergraduate representative for the Zoology Dept.  
Responsibilities: work closely with the faculty members and graduate student to improve the graduate course Insect Morphology and Classification. I instructed the lab (4 hrs/wk), helped build webpages and PPT presentations for all the course and lab lectures, performed and photographed insect dissections detailing important morphological structures, tissues, diagnostic characters, etc.
- 1999, 2000 **Teaching Assistant, Intro. Entomology Zoology 331, Dr. Richard W. Baumann, BYU**  
Responsibilities: instruct laboratory (basic insect morphology and identification of insect orders and approx. 100 families), conduct collecting trips, construct and administer exams, grade collections.

- 1999-2000     **Insect Technician, Dr. Stephen L. Wood, BYU**  
Responsibilities: help construct a bark beetle species database funded by the USDA , photographed bark beetles detailing important diagnostic characters.
- 1998           **Arthropod Collection Curator, Dr. Richard W. Baumann, BYU**  
Responsibilities: curatorial work including mounting, spreading, labeling, identifying (family level), and sorting pinned and alcohol specimens.
- 1998           **Field Assistant, Dr. Richard W. Baumann, BYU**  
Responsibilities: assist with field work, throughout UT, NV

#### GUEST LECTURES

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- 2000           “Coleoptera.” Intro. Entomology (undergraduate course), Zoology 331, BYU.
- 2000           “The Insect Abdomen: Morphology and Physiology.” Insect Morphology and Classification (graduate course), Zoology 532, BYU.
- 2000           “Coleoptera.” Insect Morph. and Classification (graduate course), Zoology 532, BYU.
- 2004           “Species Concepts.” Principles of Systematics (graduate course), Entomology 8050, UGA.
- 2004           “Phylogenetic Software Tutorial.” Principles of Systematics (graduate course), Entomology 8050, UGA.
- 2004           “Molecular Systematics and the ‘Ring of Life.’” Genome Evolution (undergraduate/graduate course), Plant Biology 6510, UGA.
- 2005           “NCBI.” Perl for Bioinformatics (graduate course), Plant Biology 8800, UGA.
- 2005           “Molecular Systematics.” Molecular Entomology (graduate course), Entomology 8250, UGA.

#### RELEVANT SKILLS

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Taxonomy and systematics: Insect identification to the familial level. Areas of taxonomic expertise: Cucujoidea, Cerylonid Series, Erotylidae, Bothrideridae, Cerylonidae, some Membracidae. Insect field work/collecting, insect collection management and curation, scientific illustration, digital illustration, specimen databasing/georeferencing.

Molecular techniques: DNA extraction, PCR, sequencing reactions, DNA sequencing, DNA contig assembly, sequence editing and alignment, DNA sequence analysis

Bioinformatics software: PAUP, Sequencher, NONA, Winclada, POY, TreeRot, Modeltest, Clustal, MacClade, TNT, Phyllip, MUSCLE, Mafft, Garli, Mesquite

Bioinformatics programming languages: Basic Html, Unix, Perl

#### PROFESSIONAL AWARDS & HONORS

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- 2008           Georgia Entomological Society Ph.D. Scholarship, \$500
- 2008           U.E. Brady Award, best student poster, Georgia Entomological Society annual meetings, UGA \$100
- 2008           First Place, poster presentation student competition, H. O. Lund Entomology Conference, Department of Entomology, UGA \$200

- 2008 Second Place, insect photo salon competition, H. O. Lund Entomology Conference, Department of Entomology, UGA \$50
- 2007 Second Place, poster presentation student competition, H. O. Lund Entomology Conference, Department of Entomology, UGA \$100
- 2007 Third Place, Insect Photo Salon (Biology Category), Georgia Entomological Society annual meetings, UGA
- 2006 H.O. Lund Outstanding Ph.D. Student, Department of Entomology, UGA \$500
- 2006 Second Place, poster presentation student competition, H. O. Lund Entomology Conference, Department of Entomology, UGA \$100
- 2006 First Place, Interpretive Art competition, H. O. Lund Entomology Conference, Department of Entomology, UGA \$100
- 2005 President's Prize for best student paper, oral presentation student competition, Entomological Society of America national meetings
- 2005 First Place, oral presentation student competition, H. O. Lund Entomology Conference, Department of Entomology, UGA \$200
- 2005 C.M. Beckham Award, best student paper, Georgia Entomological Society annual meetings, UGA \$100
- 2004 Stanley Beck Fellowship, Entomological Foundation \$1500
- 2004 Second Place, oral presentation student competition, H. O. Lund Entomology Conference, Department of Entomology, UGA \$100
- 2004 First Place, Interpretive Art competition, H. O. Lund Entomology Conference, Department of Entomology, UGA \$150
- 2002 President's Prize Honorable Mention, oral presentation student competition, Entomological Society of America national meetings
- 2001 First place, College of Biology and Agriculture research poster competition, BYU \$200
- 1997 Dean's Scholarship, School of Science and Health, UVSC (full tuition)
- 1997 Academic Scholarship, UVSC (full tuition)
- 1996-97 Dean's List, UVSC

## RESEARCH SUPPORT/GRANTS

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- 2008 Supplemental Matching Funds Grant, H. H. Ross Memorial Foundation, UGA \$2000
- 2007 Joshua Laerm Academic Support Award for Graduate Research, Georgia Museum of Natural History, \$330
- 2006 Supplemental Matching Funds Grant, H. H. Ross Memorial Foundation, UGA \$1800
- 2005 Supplemental Matching Funds Grant, H. H. Ross Memorial Foundation, UGA \$800
- 2005 Travel Grant, "Theory and Practice of Direct Optimization using POY" workshop, American Museum of Natural History \$500
- 2002 ORCA (Original Research and Creative Activities) Research Grant, BYU \$1000
- 2001 REU Fellowship, American Museum of Natural History \$4500
- 2000 ORCA (Original Research and Creative Activities) Research Grant, BYU \$1000

## GRANTS ASSISTED

- 2003 National Science Foundation (PEET) Grant #DEB-0329115 (J.V. McHugh, PI; K.B. Miller and M.F. Whiting, Co-PIs). Building taxonomic expertise in

Cucujoidea (Coleoptera): Monographic and phylogenetic research in the Cerylonid Series. \$750,000

Contribution: Assisted in the development and writing, generated all preliminary data, performed all analyses and generated and formatted figures.

## PROFESSIONAL WORKSHOPS

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- 2007 NSF “Beetle Tree of Life: Beetle Families of the World Workshop” (instructors: John Lawrence, Michael Ivie), Montana State University (one of 13 students/postdocs total nationwide, participation by invitation only). May 27-Jun 1.
- 2007 NSF “Beetle Tree of Life: Larval Coleoptera Workshop” (instructors: John Lawrence, Michael Ivie), Montana State University (one of 10 students/postdocs total nationwide, participation by invitation only). Jun 3-5.
- 2007 “Building matrix keys using Lucid” (instructor: Julia Scher), NSF Partners for Enhancing Expertise in Taxonomy (PEET) VI: Reaching Out, sixth biennial conference. Mar. 27.
- 2007 “Digital Illustration” (instructor: Ralph Holzenthal), NSF Partners for Enhancing Expertise in Taxonomy (PEET) VI: Reaching Out, sixth biennial conference. Mar. 29.
- 2006 “Cucujoidea Workshop” (instructors: Adam Ślipiński, Paul Skelley, Wioletta Tomaszewska, Joseph McHugh, Michael Thomas), University of Georgia. Dec. 18-22.
- 2006 “Taxonomic Databasing” (instructor: Norman Johnson), University of Georgia. May 18-20
- 2005 “OSU Phylogenetics Symposium and Workshop” (instructors: James Farris, Gonzalo Giribet, Pablo Goloboff, Arnold Kluge, Kevin Nixon, John Wenzel, Ward Wheeler), Ohio State University. Dec. 3-5.
- 2005 “Theory and Practice of Direct Optimization using POY” (instructors: Gonzalo Giribet, Andres Varon, Ward Wheeler), American Museum of Natural History (one of 40 students/postdocs/assist. professors total nationwide, participation by invitation only). May 15-18.
- 2004 “Historical Biogeography: The Geographical Dimension of Evolution” (instructor: Jorge Crisci), NSF Partners for Enhancing Expertise in Taxonomy (PEET) V: Spatial and Temporal Issues in Taxonomy, fifth biennial conference. Sept. 21.
- 2004 “Interactive Keys” (instructor: Peter Cranston), NSF Partners for Enhancing Expertise in Taxonomy (PEET) V: Spatial and Temporal Issues in Taxonomy, fifth biennial conference. Sept. 23.

## PUBLICATIONS

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- Robertson, J. A., M. F. Whiting, and J. V. McHugh. 2008. Searching for natural lineages within the Cerylonid Series (Coleoptera: Cucujoidea). *Molecular Phylogenetics and Evolution*. 46 (1): 193-205.
- Robertson, J. A., J. V. McHugh, and M. F. Whiting. 2004. A molecular phylogenetic analysis of the Pleasing Fungus Beetles (Coleoptera: Erotylidae): Evolution of color patterns, gregariousness, and mycophagy. *Systematic Entomology*. 29: 173-187.

Cryan, J. R., J. A. Robertson, and L. L. Deitz. 2003. The New World Treehopper Tribe Microcentrini (Hemiptera: Membracidae: Stegaspidinae): Monographic Revision and Phylogenetic Position. Thomas Say Publications (Monographs of the Entomological Society of America). 108 pgs.

#### PUBLISHED ABSTRACTS AND PROCEEDINGS

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Robertson, J. A., J. V. McHugh and M. F. Whiting. 2007. Phylogeny of the LBJs: an attempt to identify natural lineages within the Cerylonid Series (Coleoptera: Cucujoidea). Program for the PEET VI Biennial Conference, Athens, GA. March 26-29, 2007. 87 pp.

#### NON-REFEREED PUBLICATIONS

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Robertson, J. A., J. V. McHugh, and M. F. Whiting. 2002. An Investigation of Phylogenetic Relationships and Character Evolution among Erotylidae (Coleoptera: Cucujoidea). ORCA Research Journal. Brigham Young University.

Robertson, J. A., C. A. D'Haese, and W. C. Wheeler. 2001. The Phylogeny of the Collembola (Arthropoda: Hexapoda) based on Morphological and Molecular Data. Research Experience for Undergraduates. The American Museum of Natural History.

Robertson, J. A., J. V. McHugh, and M. F. Whiting. 2001. Preliminary Phylogenetic Analysis of the Erotylidae (Coleoptera: Cucujoidea) based on Molecular Data. ORCA Research Journal. Brigham Young University.

#### MANUSCRIPTS IN PREPARATION

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Robertson, J. A., S. Bradler, and M. F. Whiting. Phylogeny of Phasmatodea (Hexapoda) inferred from six genes and morphology: Basal diversification, wing recurrence, and evolution of egg laying techniques. **In prep.**

Robertson, J. A., J. V. McHugh. Taxonomic revision of the *Dastarcus* group (Coleoptera: Cucujoidea: Bothrideridae). **In prep.**

#### INVITED PRESENTATIONS

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Robertson, J. A. 2005. Systematics in the Age of Information Technology. Oral presentation at the annual meetings of the Georgia Entomological Society (Program Symposium), Mar. 2005.

Robertson, J. A., and J. V. McHugh. 2003. Systematic Review and Phylogeny of Erotylidae. Oral presentation at the annual meetings of the Entomological Society of America (Cucujoidea Symposium), Oct. 2003.

#### PRESENTATIONS

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- Robertson, J. A., S. A. Slipinski, K. B. Miller, M. F. Whiting and J. V. McHugh. 2008. Morphology and phylogeny of the Cerylonid Series (Coleoptera: Cucujoidea). Oral presentation (student competition) at the national meetings of the Entomological Society of America, Nov. 2008.
- Robertson, J. A. and J. V. McHugh. 2008. Get a haircut: a morphological study of *Dastarcus* Walker (Coleoptera: Cucujoidea). Poster presentation at the annual meetings of the Georgia Entomological Society (student competition, first place), Apr. 2008.
- Robertson, J. A. and J. V. McHugh. 2008. Get a haircut: a morphological study of *Dastarcus* Walker (Coleoptera: Cucujoidea). Poster presentation (student competition, first place) at the annual meetings of the H. O. Lund Entomology Conference, Dept. of Entomology, University of Georgia, Mar. 2008.
- Robertson, J. A. and J. V. McHugh. 2007. Get a haircut: a morphological study of *Dastarcus* Walker (Coleoptera: Cucujoidea). Poster presentation (student competition) at the national meetings of the Entomological Society of America, Dec. 2007.
- Robertson, J. A., J. V. McHugh, and M. F. Whiting. 2007. Phylogeny of the LBJs: an attempt to identify natural lineages within the Cerylonid Series (Coleoptera: Cucujoidea). Poster presentation (student competition) at the annual meetings of the Georgia Entomological Society, May. 2007.
- Robertson, J. A., J. V. McHugh, and M. F. Whiting. 2007. Phylogeny of the LBJs: an attempt to identify natural lineages within the Cerylonid Series (Coleoptera: Cucujoidea). Poster presentation at the PEET VI Biennial Conference, Athens, GA, Mar. 2007.
- Robertson, J. A., J. V. McHugh, and M. F. Whiting. 2007. Phylogeny of the LBJs: an attempt to identify natural lineages within the Cerylonid Series (Coleoptera: Cucujoidea). Poster presentation (student competition) at the annual meetings of the H. O. Lund Entomology Conference, Dept. of Entomology, University of Georgia, Mar. 2007.
- Robertson, J. A., J. V. McHugh, and M. F. Whiting. 2006. Phylogeny of the LBJs: an attempt to identify natural lineages within the Cerylonid Series (Coleoptera: Cucujoidea). Oral presentation (student competition) at the national meetings of the Entomological Society of America, Dec. 2006.
- Robertson, J. A., J. V. McHugh, and M. F. Whiting. 2006. A preliminary phylogenetic analysis of the Cerylonid Series (Coleoptera: Cucujoidea). Poster presentation (student competition, second place) at the annual meetings of the H. O. Lund Entomology Conference, Dept. of Entomology, University of Georgia, Mar. 2006.
- Robertson, J. A., J. V. McHugh, and M. F. Whiting. 2005. A preliminary phylogenetic analysis of the Cerylonid Series (Coleoptera: Cucujoidea). Poster presentation at the national meetings of the Entomological Society of America, Dec. 2005.
- Robertson, J. A., S. Bradler, and M. F. Whiting. 2005. Building a tree of Sticks: Phylogeny and Evolution of Phasmatodea. Oral presentation (student competition, President's Prize for best student paper) at the national meetings of the Entomological Society of America, Dec. 2005.

- Robertson, J. A., 2005. Beetles Stink: Chemical Defenses in Coleoptera. Oral presentation, Dept. of Entomology, University of Georgia, Apr. 2005.
- Robertson, J. A., S. Bradler, and M. F. Whiting. 2005. Building a tree of Sticks: Phylogeny and Evolution of Phasmatodea. Oral presentation (student competition, first place) at the annual meetings of the H. O. Lund Entomology Conference, Dept. of Entomology, University of Georgia, Mar. 2005.
- Robertson, J. A., S. Bradler, and M. F. Whiting. 2005. Building a tree of Sticks: Phylogeny and Evolution of Phasmatodea. Oral presentation at the annual meetings of the Georgia Entomological Society (student competition, first place), Mar. 2005.
- Bradler, S., J. A. Robertson, and M. F. Whiting. 2004. Phylogeny and evolution of Wings in Extant Phasmatodea. Oral presentation at the XXII International Congress of Entomology, Nov. 2004.
- Robertson, J. A. 2003. Phylogeny and Evolution of Erotylidae (Coleoptera: Cucujoidea). Oral presentation (student competition, second place) at the H. O. Lund Entomology Conference, Dept. of Entomology, University of Georgia, Mar. 2004.
- Robertson, J. A., J. V. McHugh, and M. F. Whiting. 2003. From Zigzags to Polka Dots: Color Patterning and Phylogeny of Erotylidae (Coleoptera: Cucujoidea). Oral presentation (student competition) at the annual meetings of the Willi Hennig Society, Jul. 2003.
- Robertson, J. A., J. V. McHugh, and M. F. Whiting. 2002. From Zigzags to Polka Dots: Color Patterning and Phylogeny of Erotylidae (Coleoptera: Cucujoidea). Oral presentation (student competition, President's Prize Honorable Mention) at the annual meetings of the Entomological Society of America, Nov. 2002.
- Robertson, J. A., J. V. McHugh, and M. F. Whiting. 2001. The Phylogeny of the Erotylidae (Coleoptera: Cucujoidea) based on Molecular Data. Oral presentation (student competition) at the annual meetings of the Entomological Society of America, Dec. 2001.
- Robertson, J. A. and C. A. D'Haese. 2001. The Phylogeny of the Collembola (Arthropoda: Hexapoda) based on Morphological and Molecular Data. Oral presentation (student competition) at the annual meetings of the Willi Hennig Society, Aug. 2001
- Robertson, J. A., J. V. McHugh, and M. F. Whiting. 2000. Preliminary Phylogenetic Analysis of the Erotylidae (Coleoptera: Cucujoidea) based on Molecular Data. Poster presentation (student competition) at the annual meetings of the Entomological Society of America, Dec. 2000.

## FIELD EXPERIENCE

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|------|-------------------------------|-------------------|
| 2008 | PNG, New Britain              | Duration: 18 days |
| 2006 | Panama, Barro Colorado Island | Duration: 18 days |
| 2006 | Zambia, Kitwe                 | Duration: 14 days |
| 2005 | Peru, Rio Tambopata           | Duration: 17 days |

2002 Panama, Barro Colorado Island Duration: 14 days  
1998-2003 Western USA (extensive)

## STUDENT ADVISING

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Daniel Cavan (undergraduate), Brigham Young University; Molecular techniques, project design, phylogenetic analysis.  
Joshua Jones (undergraduate), Brigham Young University; Molecular techniques, project design, phylogenetic analysis, research presentation.  
Seth Bybee (undergraduate), Brigham Young University; Molecular techniques.  
Lori Shapiro (undergraduate), University of Georgia; Molecular techniques, project design, research presentation.  
Nathan Lord (undergraduate), University of Georgia; Molecular techniques, project design, phylogenetic analysis, research presentation.

## PROFESSIONAL MEMBERSHIPS

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Entomological Society of America  
Georgia Entomological Society  
Coleopterists Society

## LEADERSHIP & EXTRACURRICULAR ACTIVITIES

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1999-2001 President, Tanner Entomology Club, BYU  
1996-2000 Blood drive organizer, American Red Cross  
1994-1996 Full-time (24/7) volunteer teacher/relief worker to Vietnamese community, Melbourne, Australia  
1993 Eagle Scout  
1997-1999 Breed, raise, and race racing pigeons

## VOLUNTEER WORK & SERVICE

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Insect Outreach, *Insectival*, Georgia State Botanical Gardens (Sept. 13, 2008).  
Graduate Student Committee, NSF Partners for Enhancing Expertise in Taxonomy (PEET) VI: Reaching Out, sixth biennial conference (2007)  
Seminary Instructor for local youth group, weekdays 6:30-7:30am (Sept. 2005-Jun. 2006).  
Insect Outreach for local church group (Oct. 2004).  
Local Boy Scouts of America Adventure Scout leader (Sept. 2003-May 2004).  
Insect Outreach for local church group (Oct. 2003).  
Local Boy Scouts of America WEBELO Scout leader (Jan.-Aug. 2003).  
Tutored four high school students for Science Olympiad Utah State Competition (May, 1999).  
Performed curatorial work and insect sorting at the Monte L. Bean Life Science Museum with the Entomology Club (1998-2000).  
Conducted outreach seminars (approx. 10) to K-12 school classes, youth groups, and Scouting troops (1997-2002).

Conducted Insect Shows (approx. 20) for patrons of the Monte L. Bean Life Science Museum (1998-2001).

Daycare/nursing home volunteer (Dec. 2000).

Created Insect Mimicry and Camouflage display at the Monte L. Bean Life Science Museum (1999).