

## CHRISTINE WHITNEY MILLER

Assistant Research Scientist (Faculty position)  
Entomology and Nematology Department  
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### RESEARCH INTERESTS

Evolution of behavior. I aim to improve understanding of the influence of natural environmental variation on the expression and evolution of behaviors in animals. My focus is on the reproductive traits of insects, including the behaviors, ornaments, and weapons of sexual selection. I primarily work with true bugs in the family Coreidae.

### EDUCATION

The University of Montana – Missoula

**Ph.D, Organismal Biology and Ecology.** Advisor: Dr. Douglas J. Emlen.

Dissertation: “Maternal effects and sexual selection in the heliconia bug, *Leptoscelis tricolor*.” Dissertation committee: Drs. Thomas E. Martin, John L. Maron, Erick P.

Greene, John H. Christy, and Timothy A. Mousseau. Completion date: August 29, 2007.

Wesleyan University, Middletown, CT

**B.A. Biology,** May 1998. Research Advisor: Dr. Sonia E. Sultan

### HONORS, FELLOWSHIPS, GRANTS, and AWARDS

**National Science Foundation, Animal Behavior Program,** \$372,000, Pending. Title: Sexual selection in heterogeneous environments: a multi-trait perspective. Submitted July 2008. P.I. Christine W. Miller.

**National Evolutionary Synthesis Center (NESCent) Postdoctoral Fellowship,** 2007-2009 (declined).

**Bertha Morton Graduate Student Achievement Award,** \$2000, 2007.

**Outstanding Presentation Award,** University of Montana Graduate Student and Faculty Research Conference, 2005.

**National Science Foundation Research Experience for Undergraduates** supplement to grant of D.J. Emlen for undergraduate intern to assist my work in Panama, \$6000, 2005.

**Smithsonian Tropical Research Institute Short Term Fellowship,** \$1000, 2005.

**Smithsonian Tropical Research Institute Ernst Mayr Fellowship,** \$4850, 2004.

**Smithsonian Tropical Research Institute Research Award,** \$1138, 2004.

**Summer Institute in Statistical Genetics Tuition Scholarship,** \$1650, 2004.

**BRIN Program of the National Center for Research Resources,** Travel Award to attend the Summer Institute in Statistical Genetics, Raleigh, NC, \$1370, 2004.

**NSF Graduate Research Fellowship Program** Award Recipient, \$121,500. 2003.

**Smithsonian Graduate Student Fellowship,** \$3700, 2003.

**Sigma Xi Grant-in-Aid of Research**, \$300, 2003.

**NSF EPSCoR Graduate Fellowship**, 2001-2003.

**NSF Graduate Research Fellowship Program**, Honorable Mention, 2000, 2001.

**Hughes Program in the Life Sciences**, Undergraduate Research Fellowship, \$2000, 1997.

## PUBLICATIONS

**Miller, C.W.** *In press*, *Cladistics*. Biodiversity of the small.

**Miller, C.W.** 2008. Seasonal effects on offspring reproductive traits through maternal oviposition behavior. *Behavioral Ecology* 19: 1297-1304.

Fletcher, R.J., Jr., and **Miller, C.W.** 2008. The type and timing of social information alters offspring production. *Biology Letters* 4: 482-485.

**Miller, C.W.** and A.J. Moore. 2007. A potential resolution to the lek paradox through indirect genetic effects. *Proceedings of the Royal Society (London) B*. 274: 1279-1286.

Fletcher, R.J. and **C.W. Miller**. 2006. On the evolution of hidden leks and implications for reproductive and habitat selection behaviours. *Animal Behaviour* 71: 1247-1251.

**Miller, C.W.** and D.J. Emlen. In Preparation. Dynamic shifts in the allometry of sexually-selected traits across seasons. To be submitted to *Evolutionary Ecology* 12/08.

**Miller, C.W.** and D.J. Emlen. In Preparation. Across and within population differences in the scaling relationship of a sexually-selected trait. To be submitted to *Oecologia* 12/08.

Nageon de Lestang, F. and **C.W. Miller**. In Preparation. Effects of diet on the development and survivorship of *Narnia femorata* nymphs (Hemiptera: Coreidae). To be submitted to *Florida Entomologist* 12/08. (Manuscript written with undergraduate student)

## TEACHING and LEADERSHIP EXPERIENCE

**Principles of Entomology**, University of Florida  
Undergraduate course  
Fall 2008

**Sexual selection**, University of Florida  
Graduate seminar  
Spring 2008

**Advances in Evolution**, University of Montana  
Graduate/Undergraduate course  
Fall 2006

**Advances in Evolutionary Theory**, University of Montana  
Graduate discussion group  
Fall 2003 – Spring 2006

### Teaching Assistant Positions

*Animal Behavior*, University of Montana (Spring 2004); *Ecology*, University of Montana (Fall 2003); *Primate Ecology and Conservation Field Course*, Institute of Tropical Ecology and Conservation, Panama (June 1999); *Photography II*, Wesleyan University (Spring 1998); *Development and Genetics*, Wesleyan University (Spring 1997).

## OUTREACH and MENTORING

### University of Florida

*Mentor.* I actively seek out talented undergraduates to assist in my research and to conduct their own independent projects on related topics. I am currently advising four undergraduates in my laboratory. Motivated students have the opportunity to prepare manuscripts for publication and present work at conferences (January 2008 – present).

### University Relations Outreach Program

*Guest lecturer.* Invited participant in a University of Montana outreach program to Biology I classes in high schools across Montana (2002-2006).

### Smithsonian Tropical Research Institute

*Mentor.* Advised an intern from the University of Panama and four U.S. students (including one NSF-REU student) to the construction, execution, and analysis of independent projects (2002-2005).

## INVITED SEMINARS and CONFERENCE PRESENTATIONS

**Winter Animal Behavior Meeting.** Steamboat Springs, CO (2009). Invited.  
**Society for Integrative and Comparative Biology Annual Meeting.** Boston, MA (2009)  
**Entomological Society of America Annual Meeting.** Reno, NV (2008)  
**Gordon Conference – Genes and Behavior.** Lucca, Italy (2008). Invited.  
**University of Florida, Zoology Seminar Series** (2007). Invited.  
**University of Florida, Entomology Seminar Series** (2007). Invited.  
**Association for the Study of Animal Behaviour Easter Meeting,** Penryn, UK (2007).  
**Montana State University – Bozeman, Entomology Seminar Series** (2006). Invited.  
**Animal Behavior Society Annual Meeting,** Snowbird, UT (2006)  
**Evolution International Meeting.** University of New York – Stonybrook (2006).  
**Society for Integrative and Comparative Biology Annual Meeting.** Orlando, FL (2006).  
**Evolution International Meeting,** University of Alaska – Fairbanks (2005).  
**Tupper Seminar,** Smithsonian Tropical Research Institute (2004). Invited.

## PREVIOUS RESEARCH POSITIONS

**Genetics and Neurobiology,** Dr. James H. Thomas, University of Washington (October 2000-June 2001). **Conservation Genetics,** Dr. Fred Allendorf, University of Montana. (December 1998-October 1999). **Salt Marsh Ecology,** Dr. Steven Pennings, University of Georgia Marine Institute (Fall 1998). **Wildlife Conservation Biology,** Dr. Dan Tyers, USDA Forest Service, Gardiner, MT (Summer 1998). **Plant Physiological Ecology,** Dr. Kevin Rice, Dr. Jim Richards, University of California, Davis (Summer 1996).  
**Hughes Fellow** in the laboratory of Dr. Sonia Sultan, Wesleyan University (Fall 1996-Spring 1998).

## MEMBERSHIP in PROFESSIONAL SOCIETIES

Animal Behavior Society  
American Society of Naturalists  
Society for the Study of Evolution

The Society for Integrative and Comparative Biology  
Entomological Society of America  
Florida Entomological Society

**SERVICE to UNIVERSITY and SCIENTIFIC COMMUNITY**

**Doctoral Dissertation Committee Member** for three University of Florida students.

**Manuscript Reviewer:** *Evolution; Evolutionary Ecology; Behaviour; Insect Behavior; New Phytologist*

**Judge**, Graduate Student Talk Competition, Entomological Society of America Annual Meeting 2008.

**Session Moderator**, Evolution Annual Meeting 2005.