

CURRICULUM VITAE
Joel W. McGlothlin

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Education

- 2007 Ph.D. Evolution, Ecology, and Behavior, Indiana University
(Ellen D. Ketterson, advisor)
2001 B.A. (*summa cum laude*) Biology (Honors), Vanderbilt University
(David E. McCauley, advisor)

Appointments

- 2011- Research Scientist, University of Virginia
2007-11 Postdoctoral Research Associate, University of Virginia
(Edmund D. Brodie III, advisor)

Awards and Fellowships

- 2011 Theodosius Dobzhansky Prize, Society for the Study of Evolution
2010 Young Investigator Prize, American Society of Naturalists
2005-07 NSF Doctoral Dissertation Improvement Grant
2005-07 NIH Trainee, Research Training Grant: "Common Themes in Reproductive Diversity"
2005 Fellow, Center for the Integrative Study of Animal Behavior (CISAB)
2005 Louis Agassiz Fuertes Award, Wilson Ornithological Society
2001-05 Fellow, NSF Graduate Research Fellowship Program
2001 Founder's Medal for First Honors, Vanderbilt University

Research Funding

- Pending National Science Foundation, "The evolution of sexual dimorphism in island populations of *Anolis* lizards" (PI, DEB 1146381, \$700,722)
2009 University of Virginia, Centers and Lab Union Technology Grant (\$949)
2005-07 National Science Foundation, "Disseration Research: Phenotypic integration of adaptive traits in *Junco hyemalis*," (co-PI with Ellen Ketterson, DEB 0508692, \$11,783)
2005 Indiana University, Graduate School Grant in Aid (\$600)
McCormick Science Grant, Indiana Univ. College of Arts & Sciences (\$2,500)
2004 American Ornithologists Union, Research Award (\$1,800)
Mountain Lake Biological Station, Research Fellowship (\$1,000)
Sigma Xi, Grant in Aid of Research (\$500)
2003 Sigma Xi, Grant in Aid of Research (\$750)

Publications

Forthcoming

McGlothlin, J. W. and E. D. Brodie III. In revision. Sex-specific selection and the evolution of between-sex genetic correlations. To be resubmitted to *Evolution*.

Gerlach, N. M., **J. W. McGlothlin**, P. G. Parker, and E. D. Ketterson. In review. Interpreting positive Bateman gradients in female and male dark-eyed juncos. Submitted to *Behavioral Ecology*.

Journal Articles

Gerlach, N. M., **J. W. McGlothlin**, P. G. Parker, and E. D. Ketterson. 2011. Promiscuous mating produces offspring with higher lifetime fitness. *Proceedings of the Royal Society of London B*: published online.

Formica, V. A., **J. W. McGlothlin**, C. W. Wood, M. E. Augat, R. E. Butterfield*, M. E. Barnard*, and E. D. Brodie III. 2011. Phenotypic assortment mediates the effect of social selection in a wild beetle population. *Evolution*: published online.

McGlothlin, J. W., A. J. Moore, J. B. Wolf, and E. D. Brodie III. 2010. Interacting phenotypes and the evolutionary process. III. Social evolution. *Evolution* 64: 2558-2574.

McGlothlin, J. W., D. J. Whittaker, S. E. Schrock, N. M. Gerlach, J. M. Jawor, E. A. Snajdr, and E. D. Ketterson. 2010. Natural selection on testosterone production in a wild songbird population. *American Naturalist* 175: 687-701.

McGlothlin, J. W. 2010. Combining selective episodes to estimate lifetime nonlinear selection. *Evolution* 64: 1377-1384.

Ketterson, E. D., J. W. Atwell, and **J. W. McGlothlin**. 2009. Phenotypic integration and independence: hormones, performance, and response to environmental change. *Integrative and Comparative Biology* 49: 365-379.

Galloway, L. F., J. R. Etterson, and **J. W. McGlothlin**. 2009. The contribution of direct and maternal genetic effects to life-history evolution. *New Phytologist* 183: 826-838.

McGlothlin, J. W. and E. D. Brodie III. 2009. How to measure indirect genetic effects: The congruence of trait-based and variance-partitioning approaches. *Evolution* 63: 1785-1795.

McGlothlin, J. W. and E. D. Ketterson. 2008. Hormone-mediated suites as adaptations and evolutionary constraints. *Philosophical Transactions of the Royal Society of London B* 363: 1611-1620.

McGlothlin, J. W., J. M. Jawor, T. J. Greives, J. M. Casto, J. L. Phillips*, and E. D. Ketterson. 2008. Hormones and honest signals: males with larger ornaments elevate testosterone more when challenged. *Journal of Evolutionary Biology* 21: 39-48.

McGlothlin, J. W., J. M. Jawor, and E. D. Ketterson. 2007. Natural variation in a testosterone-mediated trade-off between mating effort and parental effort. *American Naturalist* 170: 864-875.

Jawor, J. M., **J. W. McGlothlin**, J. M. Casto, T. J. Greives, E. A. Snajdr, G. E. Bentley, and E. D. Ketterson. 2007. Testosterone response to GnRH in a female songbird varies with stage of reproduction: implications for adult behaviour and maternal effects. *Functional Ecology* 21: 767-775.

McGlothlin, J. W., D. L. Duffy, J. L. Henry-Freeman*, and E. D. Ketterson. 2007. Diet quality affects feather growth rate and an attractive white plumage pattern in dark-eyed juncos (*Junco hyemalis*). *Behavioral Ecology and Sociobiology* 61: 1391-1399.

Brodie, E. D., III, and **J. W. McGlothlin**. 2007. A cautionary tale of two matrices: the duality of multivariate abstraction. *Journal of Evolutionary Biology* 20: 9-14.

Jawor, J. M., **J. W. McGlothlin**, J. M. Casto, T. J. Greives, E. A. Snajdr, G. E. Bentley, and E. D. Ketterson. 2006. Seasonal and individual variation in response to GnRH challenge in male dark-eyed juncos (*Junco hyemalis*). *General and Comparative Endocrinology* 149: 182-189.

Greives, T. J., **J. W. McGlothlin**, J. M. Jawor, G. E. Demas, and E. D. Ketterson. 2006. Testosterone and immune function inversely co-vary in a wild population of breeding Dark-eyed Juncos (*Junco hyemalis*). *Functional Ecology* 20: 812-818.

McGlothlin, J. W., P. G. Parker, V. Nolan Jr., and E. D. Ketterson. 2005. Correlational selection leads to genetic integration of body size and an attractive plumage trait in dark-eyed juncos. *Evolution* 59: 658-671.

McGlothlin, J. W., D. L. H. Neudorf, V. Nolan Jr., and E. D. Ketterson. 2004. Elevated testosterone reduces choosiness in female dark-eyed juncos (*Junco hyemalis*): evidence for a hormonal constraint on sexual selection? *Proceedings of the Royal Society of London B* 271:1377-1384.

Brooks, M. A., B. C. Harrigan*, K. M. Johnson, D. E. Lowe*, J. P. Lowery*, **J. W. McGlothlin***, M. M. Sasso*, S. A. Smith*, and D. A. Cristol. 2001. Revisit schedule does not affect results of point counts. *Journal of Field Ornithology* 72:404-411.

Book Chapters

Ketterson, E. D., J. W. Atwell, and **J. W. McGlothlin**. In review. Hormones and the evolution of behavior and other complex phenotypes. Submitted to J. Losos, ed. *Princeton Guide to Evolution*. Princeton Univ. Press, Princeton.

McCauley, D. E., C. M. Richards, S. N. Emery, R. A. Smith, and **J. W. McGlothlin***. 2001. The interaction of genetic and demographic processes in plant metapopulations: A case study of *Silene alba* in J. Silvertown and J. Antonovics, eds. *Integrating Ecology and Evolution in a Spatial Context*. Blackwell Science, Oxford.

* Undergraduate co-author

In Preparation

McGlothlin, J. W., E. D. Brodie III, and A. J. Moore. A synthesis of game theory and quantitative genetic models of social evolution.

McGlothlin, J. W., A. J. Moore, and E. D. Brodie III. Interacting phenotypes and the coevolutionary process.

Media Coverage

- 2011 Nature, "Infidelity yields better offspring"
German Press Agency, including Die Welt and Der Spiegel
The Conversation, "Do cheating females have better kids? Shake ya tail feather for yes"
Indiana University, "It's for the grandkids!"
- 2010 Indiana University, "Natural selection for moderation in testosterone surprises scientists"
UVa Today, "Study shows costs and benefits of testosterone in birds"
University of Virginia Magazine, "Between extremes"
- 2009 National Wildlife, "The high price of being a hunk"
- 2007 Indiana University, "Testosterone turns male juncos into blustery hunks—and bad dads"
ScienCentral Science Sensei, "Roid rage" (<http://bit.ly/aQKueD>)
- 2006 Birding "News and Notes"

Invited Seminars

- 2011 University of Southern Mississippi
Princeton University
- 2010 University of Illinois
University of Michigan
Virginia Tech
Ph.D. Course in Social Evolution, Holbæk, Denmark (electronic seminar)
Oklahoma State University
University of Toronto Mississauga
Ohio University
Wayne State University
University of Alabama
University of Pittsburgh
- 2006 University of Chicago
- 2005 Mountain Lake Biological Station

Symposium Talks

- 2011 Evolution, Norman, OK, Theodosius Dobzhansky Prize Lecture
- 2010 Evolution, Portland, OR, ASN Young Investigators Symposium
- 2009 Animal Behavior, Pirenópolis, Brazil, "Interacting Phenotypes" Symposium
- 2006 Animal Behavior, Snowbird, UT, "Behavioral Syndromes" Symposium

Conference Presentations

Talks

- 2009 *Anolis* Symposium, Cambridge, MA
- 2008 Evolution, Minneapolis, MN
- 2006 Evolution, Stony Brook, NY
NSERC/NSF/ESF Workshop, Vancouver, BC
- 2005 Animal Behavior, Snowbird, UT
Society for Integrative and Comparative Biology, San Diego, CA
- 2004 ESF/NSF/NSERC Workshop, Wageningen, Netherlands
- 2002 Animal Behavior, Bloomington, IN

Posters

- 2006 Animal Behavior, Snowbird, UT
- 2005 NSF/ESF/NSERC Workshop, Seattle, WA
- 2002 Evolution, Urbana, IL

Professional Society Affiliations

- American Association for the Advancement of Science
- American Society of Naturalists
- Animal Behavior Society
- Society for the Study of Evolution

Teaching Experience

Dept. of Biology, University of Virginia, Guest Lecturer

- 2011 BIOL 7020, Evolutionary Quantitative Genetics (3 lectures)
- 2010 BIOL 4180, Behavioral Ecology (1 lecture)

Dept. of Biology, Indiana University, Associate Instructor

- 2003 BIOL L111, Introductory Biology (discussion)
- 2002 BIOL L376, Biology of Birds (lab)

Dept. of Biological Sciences, Vanderbilt University, Teaching Assistant

- 2001 BIOL 119, General Zoology (lab)
- 2000 BIOL 100, Introductory Biology (lab)
BSCI 110a, Introduction to Biological Sciences (lab)

Graduate Thesis Committee

- 2010- Susan DeVries, University of Southern Mississippi

Undergraduate Mentoring

Dept. of Biology, University of Virginia

- 2011 Kaitlin Alford
- 2010-11 Uma Pendem
- 2009-10 Monika Henn (MS student, Texas State Univ. at Marcos), Jeffrey Wright, Helen Vasaly* (MS student, Univ. of Virginia)

- 2009 Maridel Fredericksen, Eleanor Giles, Jessica Lawler, Elizabeth Zipperle, Maria-Angelica Zamora-Duran
2008-10 Megan Kobiela (MS student, College of William & Mary)
2008-09 Casey Furr*, Brian Duggar
2008 Bryan Hendrick
2007-09 Tyler Cassidy
2007-08 Margo Adler (PhD student, University of New South Wales)

Dept. of Biology, Indiana University

- 2006-07 Elizabeth Schultz (PhD student, University of California Davis)
2002 Jessica Henry*

Mountain Lake Biological Station, University of Virginia

- 2005 Jennifer Phillips* (PhD student, University of California Davis)
2003 Jacqueline Gaudio* (MS, University of Hawaii, Hilo)

**NSF Research Experience for Undergraduates*

Professional Service

- 2009-10 Associate Member, Faculty of 1000 Biology
2005-06 CISAB Steering Committee, Indiana University
Animal Behavior Faculty Search Committee, Indiana University

Professional Reviewing

Journals

Science, Current Biology, Proceedings of the National Academy of the USA, Biological Reviews, Philosophical Transactions of the Royal Society B, Evolution, Evolutionary Applications, Proceedings of the Royal Society B, American Naturalist, Functional Ecology, Heredity, PLoS ONE, Genetics, Hormones and Behavior, Journal of Evolutionary Biology, Biology Letters, Animal Behaviour, Behavioral Ecology, Behavioral Ecology and Sociobiology, Naturwissenschaften, Ethology, Auk, Behaviour, Acta Ethologica

Books

Oxford University Press

Grants

National Science Foundation, external reviewer: Animal Behavior, OPUS (Evolutionary Ecology)