

Elen Oneal

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EDUCATION

2008, Ph.D., Ecology and Evolutionary Biology, University of Michigan, Ann Arbor, MI
2000, BA in Biology, *magna cum laude*, Boston University, Boston, MA

POSITIONS

2012 – present Postdoctoral Associate, Department of Biology, Duke University
2011- NIH Ruth L. Kirschstein NRSA Postdoctoral Fellow, Department of Biology, Duke University
2011- Lecturer, Department of Biology, University of North Carolina, Greensboro
2009-10, Postdoctoral Associate, Department of Biology, Duke University
2006, 08, Curatorial Research Assistant, Museum of Zoology, University of Michigan
2001-02, Lab Manager, DNA Sequencing Facility, Department of Biology, Boston University
2000, Teaching Assistant, Tropical Ecology in Ecuador Program, Boston University

RESEARCH INTERESTS

Speciation
Parent-offspring conflict
Postzygotic reproductive isolation
Sexual selection
Species Delimitation

GRANTS

2011, \$50,474, NIH Ruth L. Kirschstein NRSA Fellowship
2009-2010, \$15,000, College of Arts and Sciences, Duke University
2005-2006, \$6025, Hinsdale Scholarship, Museum of Zoology, University of Michigan
2003-2008, \$2275, Ecology and Evolutionary Biology Block Grant, University of Michigan
2005, \$1800, Society of Systematic Biology
2006, \$714, Orthopterists' society

ACADEMIC AWARDS

2011, NIH Ruth L. Kirschstein NRSA Fellowship
2005-2006, Hinsdale Scholarship, Museum of Zoology, University of Michigan
2000, Phi Beta Kappa, Boston University
2000, *magna cum laude*, Boston University
2000, Recognition of Academic Excellence Award, Boston University, Department of Biology
2000, Senior Work for Distinction: "Phylogenetic relationships among avian orders", see publications
1999, Award for Excellence in Chinese Language, Boston University
1996-2000, Dean's Merit Scholarship, Boston University

CURRENT RESEARCH PROJECTS

Genetic basis of hybrid incompatibility
Genomic imprinting and parent-offspring conflict
Gene flow and adaptation
Sexual selection and evolution of genitalia
Species delimitation with population genetics and geometric morphometrics

PUBLICATIONS

Oneal, E., and L. L. Knowles. 2013. Ecological selection as the cause and sexual differentiation as the consequence of species divergence? *Proceedings of the Royal Society, B*. 280, 20122236
Oneal, E. 2011. Review: *Looking for a Few Good Males* by Erika L. Milam. *The Wilson Journal of Ornithology* 123, 184-186.
Oneal, E., D. Otte, and L. L. Knowles. 2010. Testing for biogeographic mechanisms promoting divergence in Caribbean crickets (genus *Amphiacusta*). *Journal of Biogeography* 37, 530-540.
Oneal, E., T. Connallon and L. L. Knowles. 2007. Conflict between direct and indirect benefits of female choice in desert *Drosophila*. *Biology Letters*, 3, 29-32.
Sorenson, M. D., Oneal, E., Garcia-Moreno, J., and D. Mindell. 2003. More taxa, more characters: the hoatzin problem is still unresolved. *Molecular Biology and Evolution* 20, 1484-1498

MANUSCRIPTS IN PREPARATION

Oneal, E., Zhu, R., Wright, K., Lowry, D., and J. Willis. Characterizing genetic diversity in the *Mimulus guttatus* complex
Oneal, E., R. Franks, and J. Willis. Developmental patterns of hybrid seed lethality resulting from crosses of serpentine-adapted *M. guttatus* and *M. nudatus*
Pressler, K., Oneal, E., and L.L. Knowles. Using microsatellite markers to measure male reproductive success in a promiscuous cricket, *Amphiacusta sanctaecrucis*.

PRESENTATIONS

Evolution 2013. Oral Presentation. Patterns and genetics of hybrid seed lethality in *Mimulus*. E. Oneal, R. Franks, J. Willis.
Evolution 2012. Oral Presentation. Parent-offspring conflict and the evolution of reproductive isolation in *Mimulus*. E. Oneal. J. Willis
Mimulus Meeting 2011. Oral Presentation. Characterizing pollen tube growth and seed development in *M. guttatus*.
Evolution 2010. Poster Presentation. Does genomic conflict underlie reproductive isolation in the *Mimulus guttatus* complex? E. Oneal, J. Willis
Evolution 2009. Oral Presentation. Characterizing genetic diversity in the *Mimulus guttatus* complex. E. Oneal, J. Willis
Orthopterists' Society Meeting 2009. Oral Presentation. Testing for selective divergence in a Caribbean cricket, *Amphiacusta sanctaecrucis*.
Aristotle University of Thessaloniki. Invited talk. Biogeographic and Evolutionary mechanisms promoting divergence in Caribbean crickets (genus *Amphiacusta*).
Dissertation Defense, December 2008. Biogeographic and Evolutionary mechanisms promoting divergence in Caribbean crickets (genus *Amphiacusta*).
Evolution 2008. Oral Presentation. Testing for selective divergence in a Caribbean cricket.
Evolution 2006. Oral presentation. Does reproductive character divergence reflect the history of population divergence? E. Oneal, D. Otte, L. L. Knowles
Evolution 2005. Oral presentation. Timing and pattern of colonization in a radiation of Caribbean crickets (genus *Amphiacusta*). E. Oneal, D. Otte, L. L. Knowles

Evolution 2005. Poster presentation. Female choice for direct vs. indirect benefits. E. Oneal, T. Connallon, L. L. Knowles

TEACHING EXPERIENCE

University of North Carolina, Greensboro, Lecturer, 2011
BIO 111, Principles of Biology I

University of Michigan, Ann Arbor, Graduate Student, 2003-2008
Evolution
Insect Biology
Introductory Biology
Parasitology

Boston University, Teaching Assistant, 2000
Tropical Coastal Ecology
Tropical Montane Ecology
Tropical Rainforest Ecology

CONFERENCES ORGANIZED

2011, Mimulus Meeting, Duke University, Durham, NC

JOURNALS REVIEWED

Biological Journal of the Linnaean Society, Ibis, Journal of Biogeography, Journal of the North American Benthological Society, Journal of Orthoptera Research, Journal of Heredity, Molecular Ecology

PROFESSIONAL SOCIETY MEMBERSHIPS

Society for the Study of Evolution, Society of Systematic Biologists, Orthopterists' Society, Sigma Xi, Phi Beta Kappa;

WORKSHOPS

2010, Summer Institute for Statistical Genetics, Seattle, WA
2005, NSF-sponsored workshop on Geometric Morphometrics, Iowa State University

MENTORING

2012, mentor to undergraduate Xuan Hong Lim
2011, mentor to undergraduate Fei Gao
2007-08, mentor to undergraduate Dan Swanson
2005-06, mentor of minority undergraduates for the National Science Foundation, Diversity Committee of the Society for the Study of Evolution

DEPARTMENTAL SERVICE

2005, Graduate student representative; Executive Committee in EEB, University of Michigan
2004, Graduate student representative; Diversity Committee in EEB, University of Michigan

OUTREACH

2011, Day of Duke Medicine with the Girl Scouts of North Carolina Coastal Pines
2010-2012, Literacy tutoring, Achievement Academy, Durham, NC
2005, Science Fair judge at the Forsythe Elementary School, Ann Arbor,
2003, Developed an interactive-learning website on Insect Biology for elementary school children