

Megan Murphy

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MurphyEvolutionCommunication.wordpress.com

Curriculum Vitae

EDUCATION

- 2016 Ph.D. in Biological Sciences, University of Missouri, July 2016, Schul Lab
- 2010 B.S. in Biology and Psychology, Rockhurst University, May 2010, Macrobiology Track

PROFESSIONAL EXPERIENCE

- 2016-Current Post-Doctoral Teaching Faculty, Salisbury University, August 2016-present: Instructor of Biology Concepts and Methods and researcher in the Taylor/Hunter Evolutionary Ecology lab

RESEARCH INTERESTS

- Evolution of insect communication
- Causes of signal diversity in young taxa
- Evolutionary tradeoffs and resource investment
- Mechanisms and explanations for signal synchrony
- Evolution of female preferences and benefits they confer

TEACHING EXPERIENCE

- 2016-Current Biology Concepts and Methods: Professor, Salisbury University: Instructor for hybrid lecture/lab/online introductory course for biology majors, responsible for leading lectures/labs, implementing online assignments through Pearson MasteringBiology, writing and executing assignments and exams, working with Supplemental Instruction leader
- 2016-Current Genetic Analysis Lab: Assistant Instructor, Salisbury University: Work with Dr. Kim Hunter's Genetic Analysis course to train undergraduate students to prepare DNA libraries for next-gen sequencing, as part of authentic research in the Taylor-Hunter lab
- 2017-Current Science Communication (Graduate course): Assistant Instructor, Salisbury University: Work with Drs. Ryan Taylor and Kim Hunter in training incoming Master's students to communicate science effectively both professionally and to the public; help to review project proposals, presentations, and videos
- 2010-2014 Introduction to Biology: Lab Instructor, University of Missouri: Instructor and sole point of contact for non-major students; responsible for teaching lab, leading a weekly discussion session, writing worksheets and test items, and grading worksheets and exams

- 2013 Animal Behavior: Grader, University of Missouri: Graded all exams and assignments, assisted in writing exam items and assignments
- 2011 Invertebrate Zoology: Teaching Assistant, University of Missouri: Responsible for leading lab, writing practical-style exams, and grading worksheets and exams

PUBLICATIONS

- Accepted **Murphy, M.**, Gerhardt, H.C., Schul, J. Leader preference in *Neoconocephalus ensiger* katydids: A female preference for a non-heritable male trait. *Journal of Evolutionary Biology*.
- 2017 **Murphy, M.**, Schul, J. Does leadership indicate male quality in *Neoconocephalus* katydids? *Behavioral Ecology and Sociobiology*. 71: 22.
- 2016 **Murphy, M.**, Thompson, N.*, Schul, J. Keeping up with the neighbor: a novel mechanism of call synchrony in *Neoconocephalus ensiger* katydids. *Journal of Comparative Physiology A*. 202: 225-234.
- *Undergraduate co-author

CONFERENCE PRESENTATIONS

- 2017 **Murphy, M.** and Schul, J. Why Mate With Leaders? Direct Benefits Associated with Leader Preference in *Neoconocephalus ensiger*. Society for Integrative and Comparative Biology, New Orleans, LA (Talk)
- 2016 **Murphy, M.** Acoustic Synchrony in Insects, the How and Why. Biological Sciences Seminar, Salisbury, MD (Seminar)
- 2016 **Murphy, M.** A Directional Preference without Directional Selection: An Early Stage of Preference Evolution? Animal Behavior Society, Columbia, MO (Allee Symposium Talk)
- 2016 **Murphy, M.** A Directional Preference without Directional Selection. Columbia, MO (Defense Seminar)
- 2015 **Murphy, M.**, Thompson, N., Schul, J. Unique Mechanism of Acoustic Synchrony in *Neoconocephalus ensiger* Katydid. Animal Behavior Society, Anchorage, AK (Talk)
- 2015 **Murphy, M.**, Thompson, N., Schul, J. Unique Mechanism of Acoustic Synchrony in *Neoconocephalus ensiger* Katydid. Life Sciences Week, Columbia, MO (Poster Presentation: Honorable Mention in category Genetics, Evolution, and Environment)
- 2014 **Murphy, M.** Evolution of Communication Traits in *Neoconocephalus* Katydid. Rockhurst University Ecology Course, Kansas City, MO (Talk to undergraduates about research and graduate school)
- 2014 **Murphy, M.** and Schul, J. Leader Preference in *Neoconocephalus*: A Female Preference for a Non-Heritable Male Trait? Animal Behavior Society, Princeton, NJ (Talk)
- 2012 **Murphy, M.**, Song, Q., and Schul, J. Quantification of Immune Response as a Measure of Male Quality. Animal Behavior Society, Albuquerque, NM (Poster Presentation)

UNIVERSITY SERVICE

- 2016 Beginning Backward Design within the Biology Department: Faculty Learning Community, Salisbury University September
- 2014-2016 Division of Biological Sciences Seminar Planning Committee, University of Missouri
- 2010-2016 Biology Graduate Students Association, University of Missouri
- 2012-2014 Graduate Professional Council, University of Missouri

AWARDS

- 2014 Graduate Assistance in Areas of National Need (GAANN) Fellowship
- 2011 Menke Scholarship awarded by Webster Groves Nature Study Society

WORKSHOPS/CONFERENCES ATTENDED

- 2017 Society for Integrative and Comparative Biology, New Orleans, LA
- 2016 Digital Storytelling, Online Learning Consortium
- 2016 Animal Behavior Society, University of Missouri
- 2015 Animal Behavior Society, University of Alaska Anchorage
- 2014 Animal Behavior Society, Princeton University
- 2013-2014 Preparing Future Faculty Course, University of Missouri
- 2012 Animal Behavior Society, University of New Mexico
- 2011 Invertebrate Sound and Vibration, University of Missouri-Columbia

PROFESSIONAL AFFILIATIONS

- 2016-Current Society for Integrative and Comparative Biology
- 2012-Current Animal Behavior Society
- 2012-2016 C.V. Riley Entomological Society

OUTREACH

- 2016 Worcester Technical School Capstone Mentor, Salisbury University: Mentored two high school students in their biology capstone
- 2016 Animal Behavior Lab Tour, University of Missouri, Animal Behavior Society
- 2013, 2014 Adventures in Education, University of Missouri, Entomology Booth