

April Marie Wright

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Current Appointments

Postdoctoral Researcher

Department of Ecology, Evolution and Organismal Biology
Iowa State University
Supervisor: Dr. Tracy Heath

Postdoctoral Researcher

Department of Ecology and Evolutionary Biology
University of Kansas
Supervisor: Dr. Mark Holder

Education

2009-2015 PhD in Biology; University of Texas at Austin

Ecology, Evolution and Behavior
Award Date: April 14, 2015
Supervisor: Dr. David M. Hillis

2005-2009 BA in Biology; St. Olaf College

Publications

- Bapst DW, **Wright AM** Lloyd GT, Matzke NJ. In Review. Bio Lett. Topology, divergence dates, and macroevolutionary inferences vary between different tip-dating approaches applied to fossil theropods (Dinosauria).
- **Wright AM**, Lloyd GT, Hillis DM. Accepted. Modeling character change heterogeneity in phylogenetic analyses of morphology through the use of priors. Syst. Biol. doi: 10.1093/sysbio/syv122
- Meirelles L, Solomon S, Bacci M, **Wright AM**, Mueller, U, Rodrigues, A. 2015. Shared Escovopsis infections destabilize the tripartite co-evolution hypothesis in the higher-attine fungus-growing ant symbiosis. R. Soc. Open Sci. 2:9
- **Wright AM**, Lyons KM, Brandley MB, Hillis DM. 2015. Which Came First? Robustness in Phylogenetic Reconstruction of Ancestral States. J Exp Zool B 324: 504-516.
- **Wright AM** and Hillis DM. 2014. Bayesian Analysis Using a Simple Likelihood Model Outperforms Parsimony for Estimation of Phylogeny from Discrete Morphological Data. PLoS One 9:10.
- Li T, Hua J, **Wright AM**, Cui Y, Xie Q, Bu W, Hillis DM. 2014. Long-branch attraction and the phylogeny of true water bugs (Hemiptera: Nepomorpha) as estimated from mitochondrial genomes. BMC Evol Biol 14:99.

Technical Reports

Hillis DM, Devitt TJ, **Wright AM**, Cannatella DC. City of Austin Report. Genomic Assessment of Taxonomic Status of Central Texas Eurycea Salamanders.

Software

PartitionFinder-Morphology (Python) - Dataset partitioning selection for likelihood and Bayesian phylogenetics (developer - <https://github.com/wrightaprlm/partitionfinder>)

Grants and Awards

- National Science Foundation Postdoctoral Research Fellowship in Biology, Interdisciplinary Research Using Biological Collections: Estimating a Time-Scaled Phylogenetic Tree of Ants from Combined Molecular-Morphological Data. \$136,000. Awarded: March 2016.
- Jackson School of Geosciences: Student Travel Award. \$600. Awarded: November 2014.
- National Science Foundation Doctoral Dissertation Improvement Grant: Utilizing maximum likelihood estimation for phylogenetic estimation from morphological data. \$6,820. Awarded: March 2013. Effective: September 2013.
- University of Texas College of Natural Sciences Outstanding Teaching Assistant. \$500 Awarded: April 2013.

Invited Talks

- **Wright AM**. Model Misspecification: Lessons From Empirical Data. Iowa State University. Ames, IA. February 2016.
- **Wright AM**, Lyons KM, Hillis DM and Brandley M. Estimating models of character evolution with phylogenetic uncertainty. Evolution Meetings. Raleigh, NC. June 2014.
- **Wright, AM** and Hillis, DM. Utilizing model-based methods for estimating phylogenetic trees from discrete morphological data with rate heterogeneity. University of Texas at Tyler. September 2013.

Presentations at Scientific Meetings

- **Wright AM**, Lloyd GT, Matzke NJ, and Bapst DW. Fossils-only tip-dating of deinonychosaurian theropods: a comparison of methods and models. Society of Vertebrate Paleontology Annual Meeting. Berlin, Germany. November 2014.
- **Wright AM** and Hillis DM. Utilizing model-based methods for estimating phylogenetic trees from discrete morphological data with rate heterogeneity. Evolution Meetings. Snowbird, UT. July 2013.
- **Wright AM**, Brown JP, Slater GJ, and Hillis DM. On the utility of likelihood-based methods for phylogenetic estimation from binary data. Society of Vertebrate Paleontologists Annual Meeting. Raleigh, NC. October 2012.
- **Wright AM**, Brown JP, Harmon LJ and Hillis, DM. Model-based methods for paleontological phylogenetics. Annual BEACON Meeting. East Lansing, Michigan. July 2012. Poster Presentation.
- **Wright AM** and Hillis DM. Effects of gene conversion on phylogenetic reconstruction. Evolution Meetings. Norman, Oklahoma. July 2011. Poster presentation.
- **Wright AM** and Hillis, DM. Effects of gene conversion on phylogenetic reconstruction. Annual BEACON Meeting. East Lansing, Michigan. August 2010. Poster presentation.

Symposia Organized

Putting Fossils in Trees. Society of Vertebrate Paleontology Annual Meeting. Berlin, Germany. November 2014. Moderators: **Wright AM**, Matzke NJ, Lloyd GT and Bapst, DW.

Teaching Assistant Appointments

- July 2014, July 2016: Woods Hole Workshop on Molecular Evolution; Woods Hole Marine Biological Laboratory.
- September 2009 — May 2014: School of Biological Sciences, University of Texas at Austin.
Courses: Advanced Systematics, Evolution, Evolution and Diversity, Lab Experience in Genetics, Human Biology, Genetics.
- Fall 2011 — Spring 2012: Statistics and Data Science Department (Formerly known as Statistics and Scientific Computing), University of Texas at Austin. Courses: Beginning Python.
- September 2006 — May 2008: St. Olaf College.
Courses: Genetics (lab section), Evolution and Diversity (lab section).

Courses and Workshops Developed

- February 2016: Bodega Bay Marine Lab Intermediate Bioinformatics Training workshop. Workshop Session: Reduced-Representation Sequencing for Population History Inference
- October 2014: Society of Vertebrate Paleontology Annual Meeting.
Workshop: Using fossils as tips in phylogenetic analyses.
- Spring 2013 & 2014: Center for Computational Biology and Bioinformatics, University of Texas at Austin.
Course: Introduction to Biological Computing
- Spring 2014: Center for Computational Biology and Bioinformatics Big Data in Biology Summer School, University of Texas at Austin.
Course: Introduction to Python for Biologists
- Fall 2014: Statistics and Data Science Department, University of Texas at Austin.
Workshop: Intermediate Python.

Professional Service

- SciPy 2015 Conference Diversity Committee (SciPy Conference 2015, Austin, TX)
- Software Carpentry Diversity Committee member (2014-)
- NESCent Phylotastic! Hackathon (January 2013)
- Girl Scouts TechGirls (Classroom Volunteer, 2012).
- GirlStart Girl Congress (Activity Leader, 2011)
- Travis County High School Science Fair (Judge, 2010)
- Contributor: Macroevolution Journal Club
- Blog Owner: <http://wrightaprilm.github.io/>
- **Journal reviewer for:** *American Naturalist*, *BMC Evolutionary Biology*, *Ecology Letters*, *Molecular Biology & Evolution*, *Systematic Biology*.
- **Award reviewer for:** Travel Awards, SciPy Conference (2015).
- **Society Membership:** Society of Systematic Biologists