# **April Marie Wright**

**Address** 

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## **Current Appointments**

**Assistant Professor, Department of Biological Sciences** 

Southeastern Louisiana University August 2017 - Present

## **Past Appointments**

**National Science Foundation Postdoctoral Fellow in Biology** 

July 2016 - Present Iowa State University & The Field Museum Supervisors: Dr. Tracy Heath & Dr. Corrie Moreau

**Postdoctoral Researcher** Iowa State University September 2015 - July 2016

Ecology, Evolution and Organismal Biology

Supervisor: Dr. Tracy Heath

**Postdoctoral Researcher** 

University of Kansas July 2015 - July 2016

Ecology and Evolutionary Biology 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 Hillis

2005-2009 BA in Biology; St. Olaf College

#### **Publications**

Wright, AM 2017. Editor's note on 'Putting fossils in trees' special issue. Biol. Lett. 13: 1.

Lanfear, R, **Wright AM**, Fransden PB, Senfeldova T, Calcott B. 2017. PartitionFinder 2: new methods for selecting partitioned models of evolution for molecular and morphological phylogenetic analyses. Mol. Biol. and Evol. 34: 772-773.

Matzke NJ, **Wright AM**. 2016. Inferring node dates from tip dates in fossil Canidae: the importance of tree priors. Biol. Lett. 12: 8.

Bapst DW, **Wright AM** Lloyd GT, Matzke NJ. 2016. Topology, divergence dates, and macroevolutionary inferences vary between different tip-dating approaches applied to fossil theropods (Dinosauria). Biol. Lett. 12: 7.

**Wright AM**, Lloyd GT, Hillis DM. 2016. Modeling character change heterogeneity in phylogenetic analyses of morphology through the use of priors. Syst. Biol. 65: 602-611.

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. 2015. Genomic Assessment of Taxonomic Status of Central Texas Eurycea Salamanders. City of Austin Report.

#### Grants

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: 2016.

National Science Foundation Doctoral Dissertation Improvement Grant: Utilizing maximum likelihood estimation for phylogenetic estimation from morphological data. \$6,820. Awarded: 2013.

#### **Awards**

University of Texas College of Natural Sciences Outstanding Teaching Assistant. \$500 Awarded: 2013.

Jackson School of Geosciences: Student Travel Award. \$600. Awarded: 2014.

## **Curriculum Development**

July 2016 - March 2017: Data Carpentry Python Ecology lesson maintainer.

• Published Lesson Materials: 10.5281/zenodo.570050

August 2016: Nantucket developeR Course. Workshop Materials: Developing Phylogenetic Methods in R

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.

#### **Teaching Assistant Experience**

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, University of Texas at Austin. Courses: Beginning Python.

September 2006 — May 2008: St. Olaf College. Courses: Genetics (lab section), Evolution and Diversity (lab section).

#### **Students Mentored**

Patrick Mendoza, Iowa State University Andre Flores, Iowa State University Kelly Schiro, Iowa State University Krishna Gandikota, Iowa State University

#### **Software**

PartitionFinder2 (Python) - Dataset partitioning selection for likelihood and Bayesian phylogenetics. Lanfear R, Frandsen PB, **Wright AM** and Calcott BC. (developer - https://github.com/brettc/partitionfinder)

#### **Invited Talks**

#### 2016

Wright AM. Using Phylogenetic Trees to Study Evolutionary History. Texas Women's University. Denton, TX.

**Wright AM**. Model Misspecification: Lessons From Empirical Data. Iowa State University. Ames, IA. February 2016.

#### 2014

**Wright AM**, Lyons KM, Hillis DM and Brandley M. Estimating models of character evolution with phylogenetic uncertainty. Evolution Meetings. Raleigh, NC.

#### 2013

**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.

## **Presentations at Scientific Meetings**

#### 2016

**Wright AM** and Heath, TA. Innappropriate parameterization causes inaccurate estimation of node ages. Geological Society of America Meetings. Denver, CO.

**Wright AM** and Heath, TA. Innappropriate parameterization causes inaccurate estimation of node ages. Evolution Meetings. Austin, TX.

#### 2014

**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.

#### 2013

**Wright AM** and Hillis DM. Utilizing model-based methods for estimating phylogenetic trees from discrete morphological data with rate heterogeneity. Evolution Meetings. Snowbird, UT.

#### 2012

**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.

#### 2011

**Wright AM**, Brown JP, Harmon LJ, and Hillis, DM. Model-based methods for paleontological phylogenetics. Annual BEACON Meeting. East Lansing, Michigan. Poster Presentation.

**Wright AM** and Hillis DM. Effects of gene conversion on phylogenetic reconstruction. Evolution Meetings. Norman, Oklahoma. Poster presentation.

#### 2010

**Wright AM** and Hillis, DM. Effects of gene conversion on phylogenetic reconstruction. Annual BEACON Meeting. East Lansing, Michigan. August 2010. Poster presentation.

## Symposia Organized

#### 2016

New Approaches to Phylogenetic Paleobiology. Geological Society of America Annual Meetings. Moderators: Bapst DW, Hopkins M, **Wright AM**, and Wright DF.

#### 2014

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

#### **Professional Service**

SciPy 2015 Conference Diversity Committee: Committee Member, SciPy Conference 2015

Software Carpentry Diversity Committee: Committee Member, 2014-

NESCent Phylotastic! Hackathon: Participant, 2013

Macroevolution Journal Club: Contributor and Organizer, 2012 - 2015

**Journal reviewer for:** American Naturalist, BMC Evolutionary Biology, Ecology Letters, Molecular Biology & Evolution, Systematic Biology, Botany, Biology Letters, Proceedings of the Royal Society B.

Award reviewer for: Systematic Biology Mini-ARTS Awards; SciPy Conference (2015) Diversity Travel Awards.

**Society Membership:** Society of Systematic Biologists

### **Outreach**

Girls In STEM at Abby Sawyer Elementary School: Activity Leader, 2016

Girl Scouts TechGirls: Activity Leader, 2012

GirlStart Girl Congress, Activity Leader, 2011

Travis County High School Science Fair: Judge, 2010

Blog Owner: http://wrightaprilm.github.io/, Paleantology