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RESEARCH INTERESTS

Computational Phylogenetics, Biodiversity in Madagascar, Molecular Evolution, Comparative Genomics, Gene Duplication and Loss

PROFESSIONAL EXPERIENCE

2017-Present Postdoctoral Research in the Yoder Lab at Duke University:
Phylogenetics and genomics of mouse lemurs, evolution of grassland communities in Madagascar

2012-2017 Graduate Research at University of Florida:
Detecting ancient whole genome duplications, estimating rates of evolution and rates of gene duplication, detecting positive selection in molecular data, evolution of recombination rate

2008-2012 Undergraduate Research at Southeastern Louisiana University:
Molecular evolution of anthocyanin regulatory network, sweet potato population genetics, morning glory systematics

EDUCATION

2012-2017 Ph.D (Biology) University of Florida
Advisor: Dr. J. Gordon Burleigh

2008-2012 B.S. (Biology) Southeastern Louisiana University
Minor: Mathematics
Advisor: Dr. Richard E. Miller

PUBLICATIONS

Tiley GP, Kimball RT, Braun EL, Burleigh JG. 2018. Comparison of the Chinese bamboo partridge and red Junglefowl genome sequences highlights the importance of demography in genome evolution. *BMC Genomics* 19:336.

Yoder AD, Poelstra JW, Tiley GP, Williams RC. 2018. Neutral theory is the foundation of conservation genetics. *Mol Biol Evol*. 35:1322-1326.

Li Z*, Tiley GP*, Galuska SR, Reardon CR, Kidder TI, Rundell RJ, Barker MS. 2018. Multiple large-scale gene and genome duplications during the evolution of hexapods. *Proc Natl Acad Sci USA*. 115:4713-4718.

Tiley GP, Ané C, Burleigh JG. 2016. Evaluating and characterizing ancient whole-genome duplications in plants with gene count data. *Genome Biol Evol.* 8:1023-1037

Tiley GP, Burleigh JG. 2015. The relationship of recombination rate, genome structure, and patterns of molecular evolution across angiosperms. *BMC Evol Biol.* 15:194

Eserman LA, Tiley GP, Jarret RL, Leebens-Mack JH, Miller RE. 2014. Phylogenetics and diversification of morning glories (Tribe Ipomoeeae, Convolvulaceae) based on whole plastome sequences. *Am J Bot.* 101:92-103

*co-first authorship

PUBLICATIONS IN REVISION

Tiley GP, Barker MS, Burleigh JG. Assessing the performance of Ks plots for detecting ancient whole genome duplications. *Genome Biol Evol.*

TEACHING

2017 Spring	Genetics (TA)
2016 Fall	Critical analysis of Biological Research
2016 Spring	Genetics (TA)
2015 Fall	Intro to Perl Programming
2014 Fall	Plants and Human Affairs (TA)
2014 Spring	Intro to Perl Programming (1 lecture)
2013 Fall	General Biology Lab II
2013 Spring	General Biology Lab II

COMPUTATIONAL SKILLS

- Perl, C, R
- Parallel computing on Linux clusters
- Numerical linear algebra and optimization methods

CONFERENCE PRESENTATIONS

2017	"Conserved rates of molecular evolution among duplicate gene copies after whole genome duplication" Oral Presentation. Evolution. Portland, Oregon.
2016	"Evaluating the utility of Ks plots for detecting whole genome duplications" Oral Presentation. Evolution. Austin, Texas.
2016	"The *Bambusicola thoracicus* genome reveals patterns of molecular evolution in Phasianidae" Poster Presentation. Evolution. Austin, Texas.
2015	"Heterogeneity in whole genome duplication retention rates across angiosperms" Poster Presentation. SEPEEG. Eatonton, GA.
2015	"Evaluating evidence for whole genome duplications from synonymous substitution rates" Oral Presentation. Botany. Edmonton, Alberta.
2015	"Heterogeneity in whole genome duplication retention rates across angiosperms" Poster Presentation. Botany. Edmonton, Alberta.
2014	"Heterogeneity in whole genome duplication retention rates across angiosperms" Poster Presentation. UF Genetics Symposium. Gainesville, FL.
2014	"Evolution of recombination rate in angiosperms" Oral Presentation. Evolution. Raleigh, NC.
2013	"Evolution of recombination rate in angiosperms" Poster Presentation. UF Genetics Symposium. Gainesville, FL.
2013	"Detecting evolutionary rate shifts in HIV" Poster Presentation. Poster Presentation. 18th International Bioinformatics Workshop on Virus Evolution and Molecular Epidemiology. Gainesville, FL.
2013	"Molecular and Morphological Evaluation of Accessions of *Ipomoea batatas* and Closely Related Species" Oral Presentation. National Sweetpotato Collaborators Group. Orlando, FL.
2012	"Population Genetic and Geographic Structure of *Ipomoea Batatas* and its wild relatives" Invited Oral Presentation. Presented by Craig Yencho. Advanced Modern Breeding Techniques for Improvement of Sweetpotato. Ghent, Belgium.
2011	"Phylogeography of the Japanese Morning Glory (*Ipomoea nil*)" Poster Presentation. Evolution Meeting. Norman, OK.
2010	"Population Structure of *Ipomoea trifida*" Poster Presentation. Annual Meeting of the Southeastern Population Ecology and Evolutionary Genetics (SEPEEG) group. Madison, FL.

AWARDS & GRANTS

2016	Graduate student council travel grant. $350

2014 Graduate student council travel grant. $300
2014 American Society of Naturalists Scholarship Award. $200
2013 New Methods for Phylogenomics and Metagenomics at UT Austin travel award. $500
2012 University of Florida GSF Fellowship. $25000 for 4 years.
2011 Science and Technology Award for Research. "Phylogeography of a Syngameon- *Ipomoea series Batatas*" $1000. Funded by SELU college of Science and Technology.
2010 Travel Grant for Presenting at SEPEEG 2010. $333. Funded by SELU student government association.
2009 Science and Technology Award for Research. "Complete Plastid Genomes of Morning Glories for Studies of Systematics and Evolution" $1500. Funded by SELU college of Science and Technology.
2008 Science and Technology Award for Research. "An Overview of the Systematics of Morning Glories" $1500 Coauthor is Lauren A. Eserman. Funded by SELU college of Science and Technology.

REVIEWING

The American Naturalist - Biology Letters – Genetica - Molecular Biology and Evolution – Molecular Phylogenetics and Evolution – Peer J – Philosophical Transactions of the Royal Society B – PLoS One