MATTHEW GIBSON

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EDUCATION

Indiana University *2016 - Present*
Ph.D. in Evolution, Ecology, and Behavior, minor in bioinformatics
Advisor: Leonie C. Moyle

University of Kansas *2011 - 2016*
Bachelor of Science in Genetics, with honors
Thesis: *Connecting the Breeding System to Mating Patterns in Macaronesian Tolpis*
Advisors: Mark E. Mort and Daniel J. Crawford

IN REVIEW/REVISION

Gibson, M.J.S., Crawford, D.J., Mort, M.E., Kerbs, B., Menzes de Sequeira, M., Kelly, J.K. (2020). Genome-wide genotyping estimates mating system parameters in the island species *Tolpis succulenta*. *In review at American Journal of Botany*

Gibson, M.J.S. & Moyle, L.C. (2020). Regional differences in the abiotic environment contribute to genomic divergence within a wild tomato species. *In revision at Molecular Ecology* [BioRxiv: 10.1101/744797]

PUBLICATIONS

Gibson, M.J.S., Lourdes Torres, M., & Moyle, L.C. (2020). Local extirpation is pervasive among historical populations of Galpagos endemic tomatoes. *Evolutionary Ecology*. [doi: 10.1007/s10682-020-10035-3] [BioRxiv: 10.1101/744797]

Jewell, C.P., Zhang, S., **Gibson, M.J.S.**, Tovar-Mendez, A., McClure, B., & Moyle, L.C. (2020). Intraspecific standing variation underlying reproductive barriers between species in the wild tomato clade (*Solanum* sect. *Lycopersicon*). *Journal of Heredity*. esaa003: 1-11. [doi: 10.1093/jhered/esaa003] [BioRxiv: 10.1101/718544]

Kostyun, J.L., **Gibson, M.J.S.**, King, C.M., & Moyle, L.C. (2019). A simple genetic architecture and low constraint allows rapid floral evolution in a diverse and recently radiating plant genus. *New Phytologist*. 222(2): 1009-1022. [doi: 10.1111/nph.15844]

Kerbs, B., Ressler, J., Kelly, J.K., Mort, M.E., Santos-Guerra, A., **Gibson, M.J.S.**, Caujape-Castells, J., & Crawford, D.J. (2017). Variation in synthetic interspecific hybrids of Tolpis (Asteraceae) in the Canary Islands: novel character combinations, transgressive traits, and phenotypic lines. *AoB Plants*. 9(5): plx043. [doi: 10.1093/aobpla/plx043]

PRESENTATIONS

† Presenter

Gibson, M.J.S.†, Lourdes Torres, M., & Moyle, L.C. (2019). Demographic histories of tomato species on the Galpagos islands: genomic consequences of a biological invasion. Contributed presentation. *Galpagos Conservation and Research Symposium.* San Cristobal, Galapagos, Ecuador

Gibson, M.J.S.†, Lourdes Torres, M., & Moyle, L.C. (2019). Demographic and genomic threats to endemic tomato species on the Galpagos islands: evidence for local hybridization and extinction. Contributed poster. *Plant Sciences Symposium.* Davis, California.

Hibbins, M.†, **Gibson, M.J.S.**, Guerrero, R.F., & Hahn, M.W. (2019) Introgression greatly increases the probability of hemiplasy in phylogenetic inference. Poster. *Evolution.* Providence, RI.

Gibson, M.J.S.† & Moyle, L.C. (2018). Rapid phenotypic evolution is unconstrained by pleiotropy in the florally diverse genus *Jaltomata*. Poster. *American Genetic Association Presidents Symposium.* Toronto, Canada

Gibson, M.J.S.†, Josephs, E.B., & Moyle, L.C. (2017). Parallel QTL mapping of shared and unique loci for adaptation and reproductive isolation between Solanum species. Poster. *Midwest Ecology and Evolution Conference.* Champaign, Illinois, USA

Gibson, M.J.S.†(2016). Connecting the Breeding System to Mating Patterns in Macaronesian Tolpis. Presentation. *Undergraduate Research Symposium.* Lawrence, Kansas, USA.

SOFTWARE

HeIST: **He**miplasy **I**nference and **S**imulation **T**ool. Hibbins, M. & Gibson, M.J.S. 2020. [https://github.com/mhibbins/HeIST]

TEACHING EXPERIENCE

Assistant Instructor, R Programming Boot camp, Indiana University	2019
Guest lecture on climate change and adaptation, BIOL 318 Evolution, Indiana University	2019
Assistant Instructor, BIOL 318 Evolution, Indiana University	2019
Assistant Instructor, BIOL 111 Evolution and Diversity, Indiana University	2018
Guest lecture on genetic mapping, BIOL 318 Evolution, Indiana University	2017
Assistant Instructor, BIOL 318 Evolution, Indiana University	2017
Assistant Instructor, BIOL 113 Biology Laboratory, Indiana University	2016-2017
Undergraduate Teaching Assistant, Human Anatomy, University of Kansas	2015

AWARDS/HONORS

American Society of Naturalists George Gilchrist Student Research Award, $2000	2020
George W. Brackenridge Fellowship, Indiana University, $2500	2019
Plant Sciences Symposium Travel Award, UC Davis, $500	2019
Cleland Plant Science Travel Award, Indiana University, $500	2018
Summer Institute in Statistical Genetics Scholarship, University of Washington, $2000	2017
Floyd Plant Biology Fellowship, Indiana University, $3000	2017-2020
Departmental Honors, University of Kansas	2016
Undergraduate Research Award, University of Kansas, $1000	2016
Deans List, University of Kansas	2014-2016

WORKSHOPS

Summer Institute in Statistical Genetics, University of Washington 2017

PROFESSIONAL EXPERIENCE

Student representative Evolution Job Search Committee, Indiana University 2019
Student representative EEB Hiring Committee, Indiana University 2018

VOLUNTEER EXPERIENCE

Mentor, Jim Holland Summer Science Research Program, Indiana University 2018-2019
Instructor, Our Evolving World, Indiana University 2018-2019
Mentor, Groups Scholars STEM Program, Indiana University 2016-2017
Natural Science Community Organization, University of Kansas 2015