

# MATTHEW GIBSON

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## EDUCATION

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### 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

## PUBLICATIONS

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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. *In review at New Phytologist*

**Gibson, M.J.S.**, Lourdes Torres, M., & Moyle, L.C. (2019). Failure to relocate historical collections suggests fragile persistence of endemic Galpagos tomato populations. *In prep*

Jewell, C.P., Zhang, S., Tovar-Mendez, A., **Gibson, M.J.S.**, & Moyle, L.C. (2019). Intraspecific standing variation underlying reproductive barriers between species in the wild tomato clade (*Solanum* sect. *Lycopersicon*). *In prep*

Jewell, C.P., Zhang, S.V., Tovar-Mendez, A., **Gibson, M.J.S.**, McClure, B.A., Hahn, M.W., & Moyle, L.C. (2019). Postmating prezygotic reproductive isolation shares genetic mechanisms with intraspecific mate choice in plants. *In prep*

Kerbs, B. et al., **Gibson, M.J.S.** (2017). Variation in synthetic interspecific hybrids of *Tolpis* (Asteraceae) in the Canary Islands: novel character combinations, transgressive traits, and phenotypic lines. *AoB Plants* (Sixth author)

## PRESENTATIONS

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**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, Galpagos, Ecuador

**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.

Mort, M.E., Archibald, J.K., **Gibson, M.J.S.**, Bontrager, H., Hauber, D.P., Borges Silva, L., Menezes de Sequeira, Moura, M., Santos-Guerra, A., Kelly, J.K., Gruenstaedl, M., Juli Caujape-Castells, &

Crawford, D.J. (2016). The utility of Multiplexed-Shotgun-Genotyping (MSG) for resolving phylogenetic relationships within and among oceanic archipelagos: an example from Macaronesian Tolpis (Asteraceae). *Island Biology*. Azores, Portugal.

Mort, M.E., Archibald, J.K., **Gibson, M.J.S.**, Bontrager, H., Hauber, D.P., Borges Silva, L., Menezes de Sequeira, Moura, M., Santos-Guerra, A., Kelly, J.K., Gruenstaeudl, M., Juli Caujape-Castells, & Crawford, D.J. (2016). Analyses of Multiplexed-Shotgun-Genotyping (MSG) data reveal cryptic biodiversity in Macaronesian Tolpis. *Island Biology*. Azores, Portugal.

## TEACHING EXPERIENCE

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Guest lecture on climate change and adaptation, BIOL 318 Evolution, Indiana University	2019
Assistant Instructor, BIOL 318 Evolution, Indiana University	2019
Instructor, Our Evolving World, Indiana University Foundations in Science and Mathematics	2018-2019
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

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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	2017-2019
Departmental Honors, University of Kansas,	2016
Undergraduate Research Award, University of Kansas, \$1000	2016
Deans List, University of Kansas	2014-2016

## WORKSHOPS

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Summer Institute in Statistical Genetics, University of Washington	2017
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## PROFESSIONAL EXPERIENCE

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Student representative EEB hiring committee, Indiana University	2018
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## VOLUNTEER EXPERIENCE

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

## SOFTWARE PROFICIENCY

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**Languages:** Python, R, and Bash

**Life science/genomics:** GATK, samtools, BCFtools, BWA, Stacks, iPyrad, R/QTL, Structure, and scikitlearn