David Tian

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EDUCATION

2019-Present **University of California, Berkeley**
PhD in Integrative Biology | Museum of Vertebrate Zoology
Advisor: Christopher Martin

2017 **Swarthmore College**
B.A. in Biology | Minor in History
Advisor: Vince Formica

2015 **Marine Biological Laboratory – Ecosystems Center**
Semester in Environmental Science (SES)

RESEARCH EXPERIENCE

2017-2019 **Princeton University**
Research Specialist; Advisor: Lindy McBride
Genomic and neural basis of mosquito host preference behavior in *Aedes aegypti*.

2017 **Swarthmore College**
Research Assistant; Advisor: Vince Formica
Social networks and nonlinear selection on weaponry in forked fungus beetles.

2016 **Smithsonian Tropical Research Institute**
REU Student; Advisor: W. Owen McMillan
Genetic and molecular basis of wing pattern coloration in *Heliconius* butterflies.

2015 **Marine Biological Laboratory - Ecosystems Center**
Research Assistant; Advisor: Chris Neill
Influence of land use change and heavy metals on invasive species spatial distributions.

2015 **Swarthmore College**
Research Assistant; Advisor: Nick Kaplinsky
Designed transgenic luciferase tools to visualize the heat shock response in *A. thaliana.*

2014 **Cornell University**
Research Assistant; Advisor: André Kessler
Effects of various modes of herbivory on volatile emission in *Solidago altissima*.

TEACHING

2017 **Teaching Assistant**
Santa Barbara Advanced School of Quantitative Biology, KITP
Course: Eco-Evolutionary Dynamics in Microbial Communities

2017 **Science Associate**
Swarthmore College
Course: Organismal and Population Biology

2015 **Student Mentor**
Swarthmore College
Science For Kids Program

SOCIAL ENGAGEMENT AND JOURNALISM

2016-2017 **Biology Editor**
Swarthmore College
Swarthmore Journal of Science

2016 **Student Delegate**
Marrakech, Morocco
United Nations Framework Convention on Climate Change (COP22)

2015-2016 **Biology Contributor**
Swarthmore College
Swarthmore Journal of Science

PRESENTATIONS

Talks

2017 Formica, V., **Tian, D.,** and E. D. Brodie III. Social network position shapes nonlinear selection on weaponry. Evolution 2017, Portland, OR.

2016 **Tian, D.**, Concha, C., and W.O. McMillan. Linking genotype to phenotype: Using CRISPR/Cas9 to alter the wing pattern coloration of *Heliconius* butterflies. REU Research Symposium, Smithsonian Tropical Research Institute.

2015 **Tian, D.** & C. Neill. Influence of soil characteristics on spatial distribution of Japanese Knotweed. SES Research Symposium, Marine Biological Laboratory.

Posters

2017 **Tian, D.**, Concha, C., & W.O. McMillan. Linking genotype to phenotype: Using CRISPR/Cas9 to alter the wing pattern coloration of *Heliconius* butterflies. Evolution 2017, Portland, OR.

2014 **Tian, D.**, Morrell, K., & A. Kessler. Protease inhibitors are induced by herbivore suites as a defense response in tall goldenrod (*Solidago altissima*). Sigma Xi Student Research Poster Session, Swarthmore College.

WORKSHOPS AND COURSES

2017 Eco-Evolutionary Dynamics in Nature and the Lab, Kavli Institute for Theoretical Physics.

GRANTS AND AWARDS

2019	NSF GRFP Honorable Mention	
2016	REU Summer Research Grant	$6,000
2015	HHMI Summer Research Grant	$4,350
2014	S. Theodore Lande Research Fellowship	$4,350

PUBLICATIONS

Peer Reviewed Articles:

In Review Formica, V., **Tian, D.,** and E. D. Brodie III. Social network position shapes nonlinear selection on weaponry.

In Prep Concha, C., Wallbank, R., Mazo-Vargas, A., Sanjeev, M., Paneso, O., Morrison, C., **Tian, D.**, Southcott, L., Kronforst, M., Jiggins, C., Scott, J., Martin, A., Papa, R., and W.O. McMillan. Extensive rewiring of WntA expression underlies mimicry and diversity of wing patterns in *Heliconius* butterflies.

Science Journalism Pieces:

2. D. Tian. 2016. Ecosystem Engineers: Modifying our Surrounding Environments. *Swarthmore Journal of Science.* 2(1):10-11.

1. D. Tian. 2015. Unraveling the Links Between Ecosystems and Public Health. *Swarthmore Journal of Science.* 1(2):36-37.

REFERENCES

Lindy McBride, Assistant Professor
Princeton University
Department of Ecology and Evolutionary Biology and the Princeton Neuroscience Institute
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Website: mcbridelab.princeton.edu

Vince Formica, Associate Professor
Swarthmore College
Department of Biology
Email: vformic1@swarthmore.edu
Website: www.formicalab.org

W. Owen McMillan, Staff Scientist
Smithsonian Tropical Research Institute
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