

David Tian

Education

- 2019–2025 **Ph.D., Integrative Biology**, University of California, Berkeley
Advisor: Christopher H. Martin
- 2013–2017 **B.A., Biology, Minor in History**, Swarthmore College
Advisor: Vince Formica
- 2015 **Semester in Environmental Science**, Marine Biological Laboratory

Appointments

- 2025–Present **NSF Postdoctoral Fellow (Rules of Life)**, University of California, Los Angeles
Advisor: Nancy Chen

Publications

Preprints

- 2024 Adavi, E. D., Dos Anjos, V. L., Kotb, S., Metz, H. C., **Tian, D.**, Zhao, Z., Zung, J. L., Rose, N. H. and C. S. McBride. 2024. Olfactory receptor coexpression and co-option in the dengue mosquito. *bioRxiv*.

Journal Articles

- 2023 Alexandre, N.M., Cameron, A.C., **Tian, D.**, Chatla, K., Whiteman, N.K., Turner, T.F., and P. N. Reinthal. 2023. Chromosome-level reference genomes of two imperiled desert fishes: Spikedace (*Meda fulgida*) and Loach Minnow (*Tiaroga cobitis*). *G3: Genes, Genomes, Genetics*. 13(10):jkad157
- 2022 **Tian, D.**, Patton, A.H., Turner, B.J., and C. H. Martin.. 2022. Severe inbreeding, increased mutation load and gene loss-of-function in the critically endangered Devils Hole pupfish. *Proceedings of the Royal Society B*. 289(1986):20221561.
- 2021 Zhao, Z., **Tian, D.**, and C. S. McBride. 2021. Development of a pan-neuronal driver in *Aedes aegypti* mosquitoes. *Cell Reports Methods*. 1(3):100042.
- 2019 Concha, C., Wallbank, W. R., Hanly, J., Fenner, J., Livraghi, L., Santiago, E., Paulo, D., Arias, C., Vargas, M., Sanjeev, M., Morrison, C., **Tian, D.**, Massardo, D., Counterman, A. B., Scott, M., Jiggins, C., Papa, R., Martin, A. and W. O. McMillan. 2019. Interplay between developmental flexibility and determinism in the evolution of mimetic *Heliconius* wing patterns. *Current Biology*. 29(23):3996-4009.e4.

Journalism

- 2016 **D. Tian**. 2016. Ecosystem Engineers: Modifying our Surrounding Environments. *Swarthmore Journal of Science*. 2(1):10-11.
- 2015 **D. Tian**. 2016. Unraveling the Links Between Ecosystems and Public Health. *Swarthmore Journal of Science*. 1(2):36-37.

Previous Research Experience

- 2017-2019 **Research Specialist**, McBride Lab, Princeton University
- 2017 **Research Assistant**, Formica Lab, Swarthmore College
- 2016 **REU Student**, McMillan Lab, Smithsonian Tropical Research Institute
- 2015 **Research Assistant**, Neill Lab, Marine Biological Laboratory
- 2015 **Research Assistant**, Kaplinsky Lab, Swarthmore College
- 2014 **Research Assistant**, Kessler Lab, Cornell University

Fellowships & Awards

- 2025-2028 NSF Postdoctoral Research Fellowship in Biology (Rules of Life): \$270,000
- 2025 Society for the Study of Evolution W.D. Hamilton Finalist Award: \$500
- 2024 Outstanding Graduate Instructor Award: \$250
- 2024 Museum of Vertebrate Zoology Alexander Fellowship: \$15,500
- 2023 Philomathia Fellowship in the Environmental Sciences: \$20,000
- 2020-2023 NSF Graduate Research Fellowship: \$138,000
- 2016 NSF Research Experiences for Undergraduates: \$6,000
- 2015 HHMI Summer Research Fellowship: \$4,350
- 2014 S. Theodore Lande Research Fellowship: \$4,350
- Total: \$458,950

Grants

- 2025 Integrative Biology Dissertation Completion Grant: \$5,300
- 2023-2025 Integrative Biology Graduate Student Travel Fund (x3): \$950
- 2022-2024 Integrative Biology Summer Research Award (x3): \$3790
- 2022-2024 David and Marvalee Wake Research Fund (x3): \$1,333
- 2021-2025 Museum of Vertebrate Zoology Travel Fund (x5): \$500
- 2021 Robert and Nancy Beim Endowed Research Fund: \$2,800
- 2020-2021 Wilhelm L. F. Martens Fund (x2): \$1,750
- 2020-2021 Integrative Biology Graduate Student Research Fund (x2): \$230
- Total: \$32,780

Presentations

Invited Presentations

- 2025 Hamilton Finalist Symposium, Society for the Study of Evolution (virtual)
- 2024 Global Perspectives in Museum Science, UC Berkeley
- 2023 Prep Lab Course, UC Berkeley
- 2023 University of San Francisco Biology Department
- 2021 Devils Hole Pupfish Incident Command Team Meeting, National Park Service

Contributed Presentations

- 2025 Society for the Study of Evolution, Athens, GA
- 2024 Society for the Study of Evolution, Montreal, CA
- 2023 Desert Fishes Council, Bishop, CA
- 2023 Molecular Evolution in Small Populations, Princeton NJ (poster)

- 2022 North American Congress of Conservation Biology, Reno, NV
- 2022 Population, Evolutionary, and Quantitative Genetics, Asilomar, CA (poster)
- 2021 Ecological and Evolutionary Ethology of Fishes (virtual)*
- 2021 Society for the Study of Evolution (virtual)
- 2021 Bay Area Conservation Biology Symposium (virtual)
- 2020-2025 Museum of Vertebrate Zoology Symposium, UC Berkeley**
- 2017 Society for the Study of Evolution, Portland, OR, (poster)
- 2016 REU Symposium, Smithsonian Tropical Research Institute
- 2015 Semester in Environmental Science Symposium, Marine Biological Laboratory
- 2014 Sigma Xi Student Research Session, Swarthmore College, (poster)

*Jack Ward Memorial Prize for best oral presentation

**Best Presentation Award: 2022, 2025

Teaching Experience

Teaching Assistant

- Spring 2025 **IB169: Evolutionary Medicine**, UC Berkeley
- Fall 2023 **IB134L: Practical Genomics**, UC Berkeley
- Spring 2020 **IB162: Ecological Genetics**, UC Berkeley
- Fall 2019 **IB001: General Biology**, UC Berkeley
- Summer 2017 **Eco-Evolutionary Dynamics in Microbial Communities**, Kavli Institute for Theoretical Physics
- Spring 2017 **BIOL002: Organismal and Population Biology**, Swarthmore College

Guest Lecturer

- Fall 2021 **IB177L: Ichthyology**, UC Berkeley.
- Fall 2020 **IB177L: Ichthyology**, UC Berkeley.

Mentorship

- 2023-2024 Joyce Wang, Senior Thesis, Undergraduate, UC Berkeley
- 2022 Tina Cai, REU, Undergraduate, Middlebury College

Outreach and Social Engagement

- 2024 **Volunteer and Presenter**, Cal Day 2024
- 2023 **Student Representative**, "Night at the Museum", Museum of Vert. Zoology
- 2023 **Tour Guide**, Berkeley Bird Festival
- 2023 **Volunteer and Presenter**, Cal Day 2023
- 2022 **Co-organizer**, Integrative Biology Research Mixers
- 2022 **Mentor and Reviewer**, UC Berkeley GRFP Workshop
- 2022 **Mentor**, Breaking Language Barriers in Ecology and Evolution
- 2022 **Curriculum Developer**, Biological Collections in Ecology and Evolution
- 2021 **Volunteer**, Skype a Scientist Program
- 2021 **Mentor**, Be a Scientist Program, Willard Middle School (Berkeley, CA)
- 2021 **Student Delegate**, UNFCCC (COP22), Marrakech, Morocco
- 2016-2017 **Biology Editor**, Swarthmore Journal of Science, Swarthmore College
- 2015-2016 **Biology Contributor**, Swarthmore Journal of Science, Swarthmore College

2015 **Mentor**, Science for Kids Program, Swarthmore College

Reviewer: *Molecular Ecology, Molecular Ecology Resources, Molecular Biology and Evolution*

Workshops and Courses

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

Media Coverage

2022 Sanders, Robert. Endangered Devils Hole pupfish is one of the most inbred animals known. *Berkeley News*. November 4th, 2022.

2022 Secon, Holly. Rarest Fish on Earth: Devils Hole Pupfish. *Discover Magazine*. May 11, 2022.

Memberships

Society for Study of Evolution

Genetics Society of America

Desert Fishes Council

Society of Conservation Biology

References

PhD Adv. Christopher H. Martin, chmartin@berkeley.edu

PhD Comm. Priya Moorjani, moorjani@berkeley.edu

PhD Comm. Stephanie Carlson, smcarlson@berkeley.edu

PhD Comm. Craig Miller, ctmiller@berkeley.edu

Postdoc Adv. Nancy Chen, nancy.chen@rochester.edu