

Michael L. Yuan

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Education

- 2021 University of California, Berkeley, California
Ph.D. Environmental Science, Policy, and Management
- 2014 Cornell University, Ithaca, New York
B.S. Biological Sciences, Natural Resources
magna cum laude with Distinction in Research

Academic Employment

Current:

- 2025– Assistant Professor
Department of Biology, Texas Christian University, Fort Worth, TX

Previous:

- 2023–2025 Postdoctoral Researcher
Institute for Biodiversity Science and Sustainability, California Academy of Sciences, San Francisco, CA
- 2021–2023 Center for Population Biology Postdoctoral Fellow
Department of Evolution and Ecology, University of California, Davis, CA
- 2014–2015 Associate in Research
Department of Evolutionary Anthropology, Duke University, Durham, NC
- 2014 Herpetology Intern
Archbold Biological Station, Venus, FL

Publications

* = equal contribution; § = mentored undergraduate

25. **Yuan ML**, Merjenburgh J, van Wagensveld TP, Esposito LA, Bell RC, Myers EA (2025) Competitor decline coincides with recent demographic expansion and island-wide panmixia in *Anolis pogus*. *Journal of Heredity*. DOI: 10.1093/jhered/esaf039
24. **Yuan ML**, Bell RC, Myers EA (2025) Reassessing a Holocene extinction: multiple lines of evidence do not support the historical presence and recent extirpation of a protected anole on the island of Anguilla. *Animal Conservation*. DOI:10.1111/acv.70024
23. Westeen EP, Wogan GOU, Wang IJ, **Yuan ML** (2025) Loss of pigments in females is associated with sexual dichromatism in an ornamental trait. *Evolution* qpaf075. DOI:10.1093/evolut/qpaf075
22. Jung C[§], Frederick JH, Graham NR, Wang IJ, Fenton C, de Queiroz K, Bell RC, **Yuan ML** (2025) Environmentally-associated color divergence does not coincide with population structure across Lesser Antillean anoles. *Biological Journal of the Linnean Society* 14:blae047. DOI: 10.1093/biolinlean/blae047
21. Stroud JT, Giery ST, Heathcote RJP, Tiatragul S, **Yuan ML**, Feeley KJ, Losos JB (2024) Observing character displacement from process to pattern in a novel vertebrate community. *Nature Communications* 15:9862. DOI: 10.1038/s41467-024-54302-1
20. Burns MD, Satterfield DR, Peoples N, Chan H, Barley A, **Yuan ML**, Roberts-Hughis AS, Russell KT, Hess M, Williamson SL, Corn KA, Mihalitsis M, Wainwright DK, Wainwright PC (2024) Complexity and weak integration promote the diversity of reef fish oral jaws. *Communications Biology* 7:1433. DOI:10.1038/s42003-024-07148-8
19. **Yuan ML**, Westeen EP (2024) Decoupled evolution of ventral and dorsal scales in agamid lizards: ventral keels are associated with arboreality. *Biology Letters* 20:20240171. DOI: 10.1098/rsbl.2024.0171

18. Bishop AP, Westeen EP, **Yuan ML**, Escalona M, Beraut E, Fairbairn C, Marimuthu MPA, Nguyen O, Chumchim N, Toffelmier E, Fisher RN, Shaffer HB, and Wang IJ (2023) Assembly of the largest squamate reference genome to date: the western fence lizard, *Sceloporus occidentalis*. *Journal of Heredity* 114:521–528. DOI: 10.1093/jhered/esad037
17. Wogan GOU, **Yuan ML**, Mahler DL, Wang IJ (2023) Hybridization and transgressive evolution generate diversity in an adaptive radiation of *Anolis* lizards. *Systematic Biology* 72:874–884. DOI: 10.1093/sysbio/syad026
16. **Yuan ML**, Jung C[§], Frederick JH, Fenton C, de Queiroz K, Cassius J, Williams R, Wang IJ, Bell RC (2023) Parallel and non-parallel phenotypic responses to environmental variation across Lesser Antillean anoles. *Evolution* 77:1031–1042. DOI: 10.1093/evolut/qpaa018
15. **Yuan ML**, Westeen EP, Wogan GOU, Wang IJ (2022) Female dewlap ornaments are evolutionarily labile and increase diversification rates in *Anolis* lizards. *Proceedings of the Royal Society B* 289:28920221871. DOI: 10.1098/rspb.2022.1871
14. **Yuan ML***, Frederick JH*, McGuire JA, Bell RC, Smith SR, Fenton C, Cassius J, Williams R, Wang IJ, Powell R, Hedges SB (2022) Endemism, invasion, and overseas dispersal: the phylogeographic history of the Lesser Antillean frog, *Eleutherodactylus johnstonei*. *Biological Invasions* 24:2707–2722. DOI: 10.1007/s10530-022-02803-9
13. **Yuan ML**, Jung C[§], Bell RC, Nelson JL (2022) Aposematic patterns shift continuously through the life of poison frogs. *Journal of Zoology* 317:241–248. DOI: 10.1111/jzo.12977
12. **Yuan ML**, Jung C[§], Wake MH, Wang IJ (2020) Habitat use, competition, and phylogenetic history shape the evolution of claw and toepad morphology in Lesser Antillean anoles. *Biological Journal of the Linnean Society* 129:630–643. DOI: 10.1093/biolinnean/blz203
11. Wogan GOU, **Yuan ML**, Mahler DL, Wang IJ (2020) Genome-wide epigenetic isolation by environment in a widespread *Anolis* lizard. *Molecular Ecology* 29:40–55. DOI: 10.1111/mec.15301
10. **Yuan ML**, White KN, Rothermel BB, Zamudio KR, Tuberville TD (2019) Close-kin mating, but not inbred parents, reduces hatching rates and offspring quality in a threatened tortoise. *Journal of Evolutionary Biology* 32:1152–1162. DOI: 10.1111/jeb.13518
9. **Yuan ML**, Wake MH, Wang IJ (2019) Phenotypic integration between claw and toepad traits promotes microhabitat specialization in the *Anolis* adaptive radiation. *Evolution* 73:231–244. DOI: 10.1111/evo.13673
8. **Yuan ML**, Wang IJ (2018) Sodium ion channel alkaloid resistance does not vary with toxicity in aposematic *Dendrobates* poison frogs: an examination of correlated trait evolution. *PLOS ONE*. DOI: 10.1371/journal.pone.0194265
7. Blekhman R, Tang K, Archie EA, Barreiro LB, Johnson ZP, Wilson ME, Kohn J, **Yuan ML**, Gesquiere L, Grieneisen L, Tung J (2016) Common methods for fecal sample storage in long-term field studies have a minimal impact on gut microbiome profiles. *Scientific Reports* 6:31519. DOI: 10.1038/srep31519
6. Snyder-Mackler N, Majoros WH, **Yuan ML**, Shaver AO, Gordon J, Kopp G, Schlebusch S, Wall JD, Alberts SC, Mukherjee S, Zhou X, Tung J (2016) Efficient genome-wide sequencing and low coverage pedigree analysis from non-invasively collected samples. *Genetics* 203:699–714. DOI: 10.1534/genetics.116.187492
5. **Yuan ML**, Dean SH, Longo AV, Rothermel BB, Tuberville TD, Zamudio KR (2015) Kinship, inbreeding, and fine-spatial structure influence gut communities of a hindgut-fermenting tortoise. *Molecular Ecology* 24:2521–2536. DOI: 10.1111/mec.13169
4. Goyret J, **Yuan ML** (2015) Influence of ambient illumination on the use of olfactory and visual signals by a nocturnal hawkmoth during close-range foraging. *Integrative and Comparative Biology* 55:486–494. DOI: 10.1093/icb/icv009

Technical & Natural History Notes:

3. **Yuan ML**, Crews SC, Esposito LA, Allen LC, Bell RC (2023) Presence of the Island Least Gecko, *Sphaerodactylus sputator* (Reptilia: Sphaerodactylidae), confirmed for Saba, Caribbean Netherlands. *Herpetology Notes* 16:1–4
2. **Yuan ML**, Frederick JH, Bell RC (2020) A novel color morph of *Sphaerodactylus sabanus* Cochran 1938 from Sint Eustatius. *Herpetology Notes* 13:1035–1039
1. **Yuan ML**, Wogan GOU, Wang IJ (2018) Trehalose improves PCR amplification of vertebrate nuclear DNA from historical allozymes. *Conservation Genetics Resources* 10:313–315. DOI: 10.1007/s12686-017-0811-4

Submitted:

- S2. Westeen EP, **Yuan ML**, Wang IJ. Ecomorphology is associated with speciation and co-occurrence patterns in *Sceloporus* lizards. In revision at *Proceedings of the Royal Society B*

S1. **Yuan ML.** Spring advancement and winter delay: increasing activity periods in California reptiles in response to climate change. Submitted to *Journal of Animal Ecology*

Grants, Awards, & Fellowships

Fellowships:

2021–2023 Center for Population Biology Postdoctoral Fellowship, UC Davis
2021 Junea W. Kelly Graduate Fellowship, Museum of Vertebrate Zoology, UC Berkeley
2018–2020 Philomathia Fellowship in the Environmental Sciences, UC Berkeley
2018–2019 Smithsonian Institution Predoctoral Fellowship, National Museum of Natural History
2017 Smithsonian Institution Graduate Fellowship, National Museum of Natural History

Grants & Awards:

2024 Evolutionary, Ecological, & Conservation Genomics Research Award, American Genetic Association
2019 Dave and Marvalee Wake Fund, Museum of Vertebrate Zoology
2018 Lewis and Clark Field Scholar, American Philosophical Society
2018 Student Research Award, American Society of Naturalists
2018 Berkeley Chapter Grant-in-Aid of Research, Sigma Xi
2018 Dave and Marvalee Wake Fund, Museum of Vertebrate Zoology
2017 Grant-in-Herpetology, Society for the Study of Amphibians and Reptiles
2017 Louise Kellogg Fund, Museum of Vertebrate Zoology
2017 Rosemary Grant Award, Society for the Study of Evolution
2016 Graduate Dean's Summer Research Grant, UC Berkeley
2015 ESPM Departmental Starter Grant, UC Berkeley
2013 Jane E. Brody Undergraduate Research Award, Cornell University
2013 Fredric N. Gabler '93 Memorial Research Honors Grant, Cornell University
2013 CALS Alumni Association Academic Enrichment Program, Cornell University
2013 Cornell Chapter Grant-in-Aid of Research, Sigma Xi
2013 Grant-in-Aid of Research, Sigma Xi
2013 Chicago Herpetological Society Research Grant
2012 Dextra Undergraduate Research Endowment, Cornell University
2012 J. Larry Landers Student Research Award, Gopher Tortoise Council

Teaching Experience

Teaching Appointments:

2025 Instructor, Ecology and the Environment, TCU
2016–2017 Graduate Student Instructor, Wildlife Ecology, UC Berkeley
2016 Graduate Student Instructor, Molecular Approaches to Environmental Problem Solving, UC Berkeley

Guest Lectures:

2024 Phylogenetic Comparative Methods, Summer Systematics Institute, California Academy of Sciences
2022 Conservation Genetics, Conservation Biology, UC Davis
2016 Methods in Conservation Genetics and Genomics, Molecular Approaches to Environmental Problem Solving, UC Berkeley

Workshops:

2023 Introduction to Geometric Morphometrics, UC Davis
2023 Techniques in Field Herpetology, Veterinary and Livestock Division, Government of Antigua and Barbuda

Graduate Mentorship:

Ayanna Browne Committee Member, M.S. 2025, San Francisco State University
Eduarda Melo Lakeside Fellow, Ph.D. Candidate, Universidade Federal de Viçosa (Brazil)

Undergraduate Mentorship:

3 students	California Academy of Sciences
1 student	UC Davis
6 students	UC Berkeley (1 honors thesis)

Presentations

Invited:

2025	Museum of Vertebrate Zoology (Herpetology), University of California, Berkeley
2025	Department of Biosciences, Rice University
2024	Department of Biology, Texas Christian University
2024	Department of Zoology, University of British Columbia
2023	Veterinary and Livestock Division, Government of Antigua and Barbuda
2023	Division of Biological and Environmental Sciences, University of Stirling (UK)
2023	Department of Biology, Purdue University
2023	Division of Biological Sciences, University of Missouri
2023	Department of Ecology and Evolutionary Biology, Cornell University
2021	Center for Population Biology, University of California, Davis
2019	Institute of Biodiversity Science and Sustainability, California Academy of Sciences
2018	Losos Lab, Organismic and Evolutionary Biology, Harvard University

Contributed:

2024	Evolution, Montreal, Canada (Poster)
2023	Evolution, Albuquerque, NM (Talk)
2022	Evolution, Cleveland, OH (Talk)
2019	Evolution, Providence, RI (Talk)
2018	Society for Integrative and Comparative Biology, San Francisco, CA (Talk)
2016	Evolution, Austin, TX (Talk)
2014	Gopher Tortoise Council, Albany, GA (Poster)

Service & Outreach

<i>Reviewer:</i>	Asian Herpetological Research, Biological Journal of the Linnean Society (3), BMC Microbiology, Journal of Biogeography (2), Journal of Zoology, Canadian Journal of Microbiology, Evolution (4), Evolutionary Applications, Integrative Organismal Biology (2), Microbial Ecology (2), Molecular Ecology (6), Molecular Ecology Resources, PLOS ONE (3), Systematic Biology (2)
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Service:

2021–2023	Organizer, Center for Population Biology Seminar Series, UC Davis
2021–2022	Center for Population Biology Postdoctoral Fellow Search Committee, UC Davis
2020–2021	ESPM Buddy Program, UC Berkeley
2017–2018	Graduate Admissions Committee, Division of Ecosystem Sciences, UC Berkeley
2013–2014	Student Advisor, Office of Undergraduate Biology, Cornell University
2013–2014	Undergraduate Research Committee, Office of Undergraduate Biology, Cornell University

Outreach:

2024–2025	Scientific Reviewer, Exhibits, California Academy of Sciences
2023–2025	Public Floor Engagement, California Academy of Sciences
2023	Guest Speaker, Antigua State College
2022	Guest Expert, St. Martin Nature Foundation (Elementary School Visits & Guided Hikes)
2021–2023	Mentor, EEB Mentor Match
2021	Guest Expert, Saba Sea and Learn (Elementary School Visits & Guided Hikes)
2021	Guest Speaker, Scientist Spotlight, Biology Undergraduate Scholars Program, UC Davis
2019	Contributor, Anole Annals Blog

2018	Bay Area Scientists in Schools, Community Resources for Science
2018	Contributor, Biodiversity of Montserrat Exhibit, Montserrat National Trust
2018	Cal Day, Museum of Vertebrate Zoology (Designed Anole Ecomorph Exhibit)
2014	Herpetology Section, Archbold Ecology Summer Camp

Society Memberships:

Society for the Study of Evolution

Society for the Study of Amphibians and Reptiles

American Genetic Association