

Xinyi Yan

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Education

University of Texas at Austin, 2nd year PhD student in EEB (2020 – present; expected 2025)

- Advisors: Dr. Caroline Farrior and Dr. Amelia Wolf

University of California, Los Angeles, B.S. (2016 – 2020)

- Applied Mathematics & Biology (Departmental Highest Honors)

- Magna Cum Laude

Peer Reviewed Publications

Kandlikar, G. S., **Yan, X.**, Levine, J. M., & Kraft, N. J. (2021). Soil Microbes Generate Stronger Fitness Differences than Stabilization among California Annual Plants. *The American Naturalist*, 197(1), E30-E39.

<https://doi.org/10.1086/711662>

Kandlikar, G. S., Johnson, C. A., **Yan, X.**, Kraft, N. J., & Levine, J. M. (2019). Winning and losing with microbes: how microbially mediated fitness differences influence plant diversity. *Ecology Letters*, 22(8), 1178-1191.

<https://doi.org/10.1111/ele.13280>

Preprints

Yan, X.* Levine, J. M., & Kandlikar, G. S.* A global synthesis of soil microbial effects on plant species coexistence.

bioRxiv: <https://www.biorxiv.org/content/10.1101/2021.11.12.467958v2>

* authors contributed equally to the writing of the manuscript.

McGuire, R. M*., Hayashi, K. T.*, **Yan, X.***, Cowen, M. C., Vaz, M. C., Sullivan, L. L., Kandlikar, G. S. (2021) EcoEvoApps: Interactive Apps for Teaching Theoretical Models in Ecology and Evolutionary Biology.

bioRxiv. <https://doi.org/10.1101/2021.06.18.449026>

* authors contributed equally to the writing of the manuscript.

Fellowships & Awards

2020 UT Austin Enhanced Support Fellowship (\$31000, one year)

2019 CALeDNA Summer Research Internship, UCLA (\$3000)

2019 First Place poster at EEB Annual Biology Research Symposiums, UCLA (\$100)

2018 Undergraduate Research Fellow, UCLA (\$2000)

Contributed Presentations

YAN, X., Levine, J. M., & Kandlikar, G. Quantifying the effect of plant-soil feedbacks on plant coexistence: A meta-analysis of the microbially mediated fitness difference. In *2021 ESA Annual Meeting* (August 2-5). ESA.

YAN, X., Kandlikar, G.S., Levine, J. M., & Kraft, J.B. (2020, August). Evaluating the microbial effect on the pairwise and community-wide coexistence of California annual species. In *2020 ESA Annual Meeting* (August 3--6). ESA.

KANDLIKAR, G. S., Cowen, M., Hayashi, K., McGuire, R. Vaz, M.C., & **Yan, X.** (2020, August). Interactive web-apps for theoretical ecology active-learning modules. In *2020 ESA Annual Meeting* (August 3--6). ESA.

SHI, J. *, **YAN, X.***, Kandlikar, G.S., & Kraft, N.J. (2019, May). Evaluating Microbial Influence on Plant Coexistence: Theory and Experiment. In *2019 Undergraduate Research Poster Day & Annual Biology Research Symposium*, UCLA. (**First Prize**)

*authors contributed equally to this work

KANDLIKAR, G. S., Johnson, C. A., **Yan, X.**, Kraft, N. J., & Levine, J. M. (2019, August). How microbially mediated fitness differences influence plant diversity. In *2019 ESA Annual Meeting* (August 11--16). ESA.

YAN, X., Kandlikar, G.S., & Kraft, J.B. (2018, May). Resource Competition and Plant-Microbe Interactions Can Jointly Influence Plant Species Coexistence. In *2018 Undergraduate Research Poster Day & Annual Biology Research Symposium*, UCLA.

Outreach & Services

Outreach Presentation at *Botany of the Holidays*, UCLA Mildred E. Mathias Botanical Garden: (Dec. 3rd 2020)

- Introduce the plant garlic and its cultural role Chinese winter holidays

Volunteer Docent, UCLA Mildred E. Mathias Botanical Garden: (Dec. 2018 – June 2020)

- Lead educational garden tours for school and adult groups

Glendale Learning Program: Volunteer Tutor; Curriculum/Education Director (Jan. 2017 – June 2020)

- Tutor STEM subjects and create weekly quizzes reflecting curriculum standards of California middle schools
- Design weekly STEM-themed activities and organize field trips to museums and science centers

Teaching & Instructional Design

Teaching Assistant, Introduction to Biology II (BIO311D): (UT Fall semester 2021)

- Lead discussions on population genetics, evolution, physiology, ecology, and sustainability.

Teaching Assistant, Biostats (SDS328M): (UT Fall semester 2020)

- Teach computer labs on inquiry-based statistical analysis using R
- Facilitate classroom discussion, hold office hours, and evaluate individual inquiry-based projects

Co-developer/maintainer, EcoEvoApps: (May 2020 – present)

- Develop and maintain apps that simulate ecological models, available in an [R package](#) and [on the web](#)
- Co-first author of a research paper (see [Preprint](#)) on using *EcoEvoApps* in undergraduate EEB education

Instructional Design Assistant, WI+RE at UCLA Biomedical Research Library: (June 2019 – June 2020)

- Create research and writing learning [modules](#), in forms of animations, interactive slides, and handouts