

# Kenji T. Hayashi

## *Curriculum Vitae*

Ph.D Candidate

Department of Ecology and Evolutionary Biology

University of California, Los Angeles

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## EDUCATION

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**Ph.D. in Ecology and Evolutionary Biology** 2018 - Present

University of California, Los Angeles

Dissertation: “Consequences of competitive interactions in spatially variable environments for plant species coexistence and distributions”

Advisor: Dr. Nathan Kraft

**B.S. in Biology** 2014 - 2018

Brown University

Advisors: Dr. Dov Sax, Dr. Brian Enquist

## FUNDING

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### Grants

**Departmental Conference Grant** 2023

University of California, Los Angeles

\$1,500 to attend Ecological Society of America conference

**Departmental Research Grant** 2022

University of California, Los Angeles

\$650 for dissertation research

**Mildred E. Mathias Graduate Student Research Grant** 2020 - 2021

University of California Natural Reserve System

\$2,000 for fieldwork at UC Santa Barbara Sedgwick Reserve: “Quantifying the effect of competitive interactions on the landscape-scale distributions of annual plant species in a California grassland”

**Departmental Research Grant** 2020  
University of California, Los Angeles  
\$500 for dissertation research

**Departmental Research Grant** 2019  
University of California, Los Angeles  
\$2,000 for dissertation research

## Fellowships & Scholarships

**Vavra Fellowship** 2018-2022  
University of California, Los Angeles

**Halde Quarter Fellowship** 2022  
University of California, Los Angeles

**Summer Mentored Research Fellowship** 2021  
University of California, Los Angeles

**Vavra Quarter Fellowship** 2021  
University of California, Los Angeles

**Palevsky Fellowship** 2018  
University of California, Los Angeles  
Awarded to one incoming student in recognition of an outstanding record

**Barclay Scholarship** 2017  
Rocky Mountain Biological Laboratory

**BrownConnect LINK Award** 2016  
Brown University

## HONORS & AWARDS

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**Winner, ESIL Environmental MosAlc Hackathon** 2023  
For group project "Biodiversity and ecosystem function: predicting resistance to wildfire from spectral diversity" in the 2023 Environmental Data Science Innovation & Inclusion Lab hackathon

**Departmental Graduate Teaching Award** 2023  
University of California, Los Angeles  
For Teaching Assistant roles in EE BIOL 161 (Plant Ecology) and EE BIOL 167 (Natural History Collections in the Biological Sciences)

<b>Honorable Mention, NSF Graduate Research Fellowship</b> National Science Foundation	2022
<b>Elected to Sigma Xi</b> Brown University	2023
<b>Honors in the Biological Sciences</b> Brown University	2018

## PUBLICATIONS

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### Journal Articles

\* indicates equal contribution

2. McGuire, RM\*, **Hayashi, KT\***, Yan, X\*, Caritá Vaz, M, Cinoğlu, D, Cowen, MC, Martínez-Blancas, A, Sullivan, LL, Vazquez-Morales, S, Kandlikar, GS. (2022). EcoEvoApps: Interactive apps for theoretical models in ecology and evolutionary biology. *Ecology and Evolution*, 12, e9556. <https://doi.org/10.1002/ece3.9556>
1. Miller, EC, **Hayashi, KT**, Song, D, Wiens, JJ. (2018). Explaining the ocean's richest biodiversity hotspot and global patterns of fish diversity. *Proceedings of the Royal Society B: Biological Sciences*, 285, 20181314. <https://doi.org/10.1098/rspb.2018.1314>

## PRESENTATIONS

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### Invited Presentations

2. **Hayashi, KT**. (April 27, 2021). Understanding the distributions of annual plant species in a California grassland. University of California, Santa Barbara, Sedgwick Reserve, Lunch & Learn Seminar (virtual).
1. **Hayashi, KT**. (October 7, 2020). Community assembly and species distributions in a California grassland: insights from population dynamics and functional traits. University of Texas at Austin, Department of Integrative Biology, EcoLunch Seminar (virtual).

### Contributed Presentations

5. **Hayashi, KT**, Kraft, NJB. (August 9, 2023). Competition along a water supply gradient: towards scaling competition to species distributions with California annual plants. Ecological Society of America, Portland, OR, USA.

4. **Hayashi, KT**, Kraft, NJB. (August 3, 2021). Spatially-variable competitive interactions shape the performance and distributions of annual plant species in a California grassland. Ecological Society of America (virtual).
3. **Hayashi, KT**, Van Dyke, MN, Kandlikar, GS, Kraft, NJB. (August 3-6, 2020). How does functional composition of the species pool impact plant performance locally? Ecological Society of America (virtual).
2. **Hayashi, KT**. (April 20, 2018). Functional traits, elevation, and the assembly of Rocky Mountain meadow communities. Brown University, Department of Ecology and Evolutionary Biology, Undergraduate Thesis Talks, Providence, RI, USA.
1. **Hayashi, KT**. (August 3, 2017). Assessing plant community assembly along an elevational gradient: a functional trait hypervolume approach. Rocky Mountain Biological Laboratory, Undergraduate Research Symposium, Gothic, CO, USA.

## TEACHING & MENTORING

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### Teaching Assistantships

#### University of California, Los Angeles

- Plant Ecology (EE BIOL 161) 2019, 2021 - 2023
- Natural History Collections in the Biological Sciences (EE BIOL 167) 2023
- Plant Physiology (EE BIOL 162) 2020, 2022
- Tropical Ecology (EE BIOL 151A) 2020
- Plant Diversity and Evolution (EE BIOL 103) 2020
- Community Ecology (EE BIOL 155) 2019

#### Brown University

- Evolutionary Biology (BIOL 0480) 2017
- Conservation Biology (BIOL 1470) 2016
- Intermediate Japanese (JAPN 0040/0050) 2015 - 2016

### Guest Lectures

- Plant diversity in ecological communities 2020  
Plant Diversity and Evolution (EE BIOL 103), University of California, Los Angeles

## Workshops

- R for Reproducible Scientific Analysis (Software Carpentry) 2021 - 2022  
Instructor/helper, University of California, Los Angeles
- Version Control with Git (Software Carpentry) 2022  
Helper, University of California, Los Angeles
- The Unix Shell (Software Carpentry) 2022  
Helper, University of California, Los Angeles

## Mentorship

### Undergraduate Students

- Julie Yang, University of California, Los Angeles 2021 - 2023  
Awarded the 2022 Departmental Park S. Nobel Prize in Plant Biology
- Fidel Negrete, University of California, Los Angeles 2022 - 2023
- Soline Grimbert, University of California, Los Angeles 2022
- Jinsuh Jung-Aum, University of California, Los Angeles 2021 - 2022
- Timothy Foster, University of California, Los Angeles 2020 - 2021

### Other

- Biology Peer Advisor, Brown University 2017 - 2018

## Teaching Certifications

- Instructor, The Carpentries 2022
- Associate, Center for the Integration of Research, Teaching, and Learning at UCLA 2021

## OTHER RESEARCH EXPERIENCE

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### Undergraduate Honors Thesis 2017 - 2018

Brown University

Functional traits, elevation, and the assembly of Rocky Mountain meadow communities

### Research Assistant 2017

Enquist Lab, Rocky Mountain Biological Laboratory

Assisted with collecting, cleaning, and analyzing data on plant community composition and carbon flux in the Colorado Rocky Mountains

**Undergraduate Researcher** 2016 - 2017  
Sax Lab, Brown University  
Contributed to collecting and analyzing data on invasive plants and productivity in grasslands

**Undergraduate Researcher** 2016  
Wiens Lab, University of Arizona  
(1) Assisted with collecting and analyzing data on marine fish biogeography  
(2) Synthesized literature on biogeography of limb morphology in lizards

**Research Assistant** 2015 - 2016  
Sax Lab, Brown University  
Assisted with collecting plant occurrence data from herbaria records

**Research Assistant** 2015  
Matter Lab, University of Cincinnati  
Assisted with fieldwork and lab experiments on metapopulation dynamics

## **PUBLIC & PROFESSIONAL SERVICE**

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### **Outreach**

- Invited use case post for Ocean Biogeographic Information System 2020

### **Departmental Service**

- Co-Organizer, “Hacky Hours” (departmental co-working space) 2019 - 2023

### **Peer Review**

- The American Naturalist
- Functional Ecology
- Plant Ecology

### **Professional Associations**

- Ecological Society of America 2019 - Present
- Sigma Xi 2018 - 2020
- International Biogeography Society 2017