

# 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 Biology**

2018 - Present

University of California, Los Angeles

Dissertation: “Consequences of competitive interactions in spatially heterogeneous environments for coexistence and distributions of California annual plants”

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”

<b>Departmental Research Grant</b> University of California, Los Angeles \$500 for dissertation research	2020
<b>Departmental Research Grant</b> University of California, Los Angeles \$2,000 for dissertation research	2019

## Fellowships & Scholarships

<b>Vavra Fellowship</b> University of California, Los Angeles	2018 - 2022
<b>Halde Quarter Fellowship</b> University of California, Los Angeles	2022
<b>Summer Mentored Research Fellowship</b> University of California, Los Angeles	2021
<b>Vavra Quarter Fellowship</b> University of California, Los Angeles	2021
<b>Palevsky Fellowship</b> University of California, Los Angeles Awarded to one incoming student in recognition of an outstanding record	2018
<b>Barclay Scholarship</b> Rocky Mountain Biological Laboratory	2017
<b>BrownConnect LINK Award</b> Brown University	2016

## HONORS & AWARDS

<b>Winner, ESIL Environmental MosAlc Hackathon</b> For group project "Biodiversity and ecosystem function: predicting resistance to wildfire from spectral diversity" in the 2023 Environmental Data Science Innovation & Inclusion Lab hackathon	2023
<b>Departmental Graduate Teaching Award</b> 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)	2023

<b>Honorable Mention, NSF Graduate Research Fellowship</b> National Science Foundation	2022
<b>Elected to Sigma Xi</b> Brown University	2018
<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

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|--|-------------------|
| • 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

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

### Guest Lectures

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| • 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

Used functional traits to study plant community assembly along an elevational gradient in the Colorado Rocky Mountains

### Research Assistant 2017

Enquist Lab, Rocky Mountain Biological Laboratory

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

<b>Undergraduate Researcher</b>	2016 - 2017
Sax Lab, Brown University	
Contributed to collecting and analyzing data on invasive plants and productivity in grasslands	
<b>Undergraduate Researcher</b>	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	
<b>Research Assistant</b>	2015 - 2016
Sax Lab, Brown University	
Assisted with collecting plant occurrence data from herbaria records	
<b>Research Assistant</b>	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