

# Kenzo Emiliano Esquivel

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## Education

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**University of California, Berkeley**, Berkeley, CA June 2024 (expected)  
PhD Candidate, Environmental Science, Policy, & Management (Advisor: Timothy Bowles)

**University of Michigan**, Ann Arbor, MI April 2019  
M.S., Ecology and Evolutionary Biology (Advisor: Jacob Allgeier)

**University of Chicago**, Chicago, IL June 2017  
B.S. with Honors in Environmental & Geophysical Science (Advisor: Steve Pruettt-Jones)

## Research Interests

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Agroecology, soil science, sustainable food systems, socio-ecological modeling, farmer decision making

## Honors and Awards

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<b>SESYNC Graduate Student Research Fellow</b>	2021 - 2022
<b>SACNAS - Tri-Societies Bridge Scholar</b>	2021
<b>Liu Fellowship for Environmental Studies</b>	2021 - 2022
<b>Berkeley Fellowship</b>	2019 - Present
<b>Rackham Merit Fellowship</b>	2017 - 2019
<b>Kate &amp; Tom Kush Award</b>	2017
<b>Udall Scholarship National Honorable Mention</b>	2016
<b>Maroon Key Society</b>	2016 - 2017
<b>Public Policy &amp; International Affairs Fellowship</b>	2016
<b>University of Chicago Dean's List</b>	2014 - 2017
<b>University Scholar Merit Award</b>	2013 - 2017

## Certificates and Short Courses

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**Graduate Leadership Certificate**, ASA, CSSA, and SSSA, 2021  
**Graduate Certificate in Food Systems**, UC Berkeley, 2021  
**DEI in Socio-Ecological Synthesis**, SESYNC, 2020

## Publications

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Chapman, M., Wiltshire, S., Bowles, T., Carlisle, L., Castillo, F., **Esquivel, K.**, Gonthier, D., Iles, A., Karp, D., Kremen, C., Liebert, J., Olimpi, E., Ryan, M., Sciligo, A., Thompson, J., Waterhouse, H., Gennet, S., Boettiger, C. Social-ecological feedbacks drive tipping points in farming system diversification *One Earth*  
<https://doi.org/10.1016/j.oneear.2022.02.007>

**Esquivel, K.E.\***, Hesselbarth, M.H.K.\* , Allgeier, J. E. (2022) Mechanistic support for increased primary production around artificial reefs *Ecological Applications* (Accepted)

**Esquivel, K.E.\***, Carlisle, L.\*, Ke, A., Olimpí, E. M., Baur, P., Ory, J., Waterhouse, H., Iles, A., Karp, D.S., Kremen, C., Bowles, T. (2021). The 'sweet spot' in the middle: why do mid-scale farms adopt diversification practices at higher rates? *Frontiers in Sustainable Food Systems* <https://doi.org/10.3389/fsufs.2021.734088>

**Esquivel, K.E.\***, Carlisle, L.\*, Baur, P., Olimpí, E. M., Ory, J., Waterhouse, H., Iles, A., Karp, D.S., Kremen, C., Bowles, T. Adoption of Diversification Practices among Organic Lettuce Growers on the Central Coast of California. *Agroecology and Sustainable Food Systems* (In Review)

Petersen-Rockney, M., Baur, P., Guzman A., Bender F.S., Calo, A., Castillo, F., De Master, K., Dumont, A., **Esquivel, K.E.**, Kremen, C., LaChance, J., Mooshammer, M., Ory, J., Price, M.J., Socolar, Y., Stanley, P., Iles, A., Bowles, T. (2021) Narrow and Brittle or Broad and Nimble? Comparing Adaptive Capacity in Simplifying and Diversifying Farming Systems. *Frontiers in Sustainable Food Systems*

### Submitted Manuscripts

Vendig, I., Guzman, A., **Esquivel, K.E.**, Ponisio, L., and Bowles, T. (2022) Direct yield benefits of soil carbon increases in low-carbon soils: A global meta-analysis of cover cropping co-benefits. *Nature Sustainability*

Qin, C., **Esquivel, K.E.**, Farrant, N., Coffin-Schmidt, C., Garcia, M., Gonzales, E., Ou, S., Mendez, M. (2022) Quantifying smoke exposure among farmworkers in California grape production. *Environmental Research: Health*

\* Denotes Co-Lead Authorship

### Research and Field Experience

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**UC Berkeley Agroecology Lab** 2020 - Present  
*Graduate Student Researcher* CA

- Dissertation research on impacts of farm management practices on a variety of soil-based ecosystem services.

**University of Michigan, Allgeier Coastal Ecology and Conservation Lab** 2018 - 2019  
*Graduate Student Researcher* Ann Arbor, MI and Abaco, Bahamas

- Committee: Jacob Allgeier (primary advisor), Annette Ostling, Karen Alofs
- Testing mechanisms for increased production on artificial reefs using an agent-based model

**University of Michigan Biological Station** June 2017 - August 2017  
*Frontiers Summer Research Student* Pellston, MI

- Advisors: Dr. Claudia Jolls and Dr. Brian Scholtens
- Comparing Two Methods of Assessing Pollinator networks

**University of Michigan Biological Station** June 2016 - August 2016  
*National Science Foundation REU Intern* Pellston, MI

- Program: *Biosphere-Atmosphere-Hydrosphere Interactions in a Changing Environment*
- Advisors: Dr. Steve Pruett-Jones, Dr. Dave Karowe, Dr. Steve Bertman
- Impacts of climate induced variability in streamflow on parasite loads, and effects of parasitism on the damselfly *Calopteryx maculata*

**University of Chicago - Kidwell Lab**  
*Lab Research Assistant*

January 2016 - June 2017  
*Chicago, IL*

- Advisors: Dr. Susan Kidwell Catilyn Meadows
- Sorted, weighed, and identified bivalves to assess live-dead mismatch to evaluate anthropogenic impacts of municipal wastewater

## Grants

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- 2020**     **ESPM Starter Grant**, University of California (\$1,750)  
*Investigating Soil Microbial Diversity in Agricultural Landscapes in the Central Coast, CA*
- 2018**     **Ichthyology Graduate Research Scholarship**, University of Michigan (\$1871)  
*Modelling fish-mediated nutrient and population dynamics on an artificial reef system.*

## Teaching & Mentorship Experience

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**University of California, Berkeley** Summer 2022  
*Program Coordinator*

Berkeley-Spelman-Tuskegee Food Systems Change-makers Program

**University of California, Berkeley** Fall 2020, Fall 2021  
*Syllabus Development (2020,2022) & Teaching team (2020,2021,2022)*

ESPM 290: Critical Engagements in Anti-racist Environmental Scholarship

**University of California, Berkeley, Haas School of Business** Fall 2020  
*Syllabus Development*

UGBA 192T: Edible Education 101- Seasons of Social Justice

**University of Michigan, Undergraduate Program in Biology** 2017-2018  
*Graduate Student Instructor*

BIO 171: General Biology, Ecology and Evolutionary Biology - Winter 2018, Fall 2018

BIO 173: General Biology, Lab - Fall 2017

**University of Michigan, Department of Biology** 2018  
*Graduate Student Mentor*

- EEB 801: Supervised Teaching - Fall 2018

## Community and Public Service

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**ASA-CSSA-SSSA Diversity Equity and Inclusion Committee** January 2022 - Present  
*Graduate Student Representative; Mentorship Sub-team*

**UAW 2865** 2020 - Present  
*Head Steward* *Berkeley, CA*

**ESPM Graduate Diversity Council** September 2019 - Present  
*Lead Organizer* *Berkeley, CA*

**ESPM Graduate Student Association**  
*Political Liaison; Social Committee*

August 2020 - Present  
Berkeley, CA

**UMich Frontiers Admissions Committee**  
*Graduate Student Representative*

February 2018 - March 2018  
Ann Arbor, MI

### Invited Talks & Presentations

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**UGA-Spelman Sustainable Food Systems Initiative** *Atlanta, GA*

January 2023

- **Esquivel, K.E.**, and Fanshel, R.Z.  
*Anti-Racism in Agri-Food Systems Workshop*  
Co-facilitated 2-day anti-racism workshop for faculty, staff and students

**ASA, CSSA, and SSSA Annual Meeting, Baltimore, MD**

November 2022

- **Esquivel, K.E.**, Waterhouse, H., Libbey, K., Bowles, T.M.  
*The sweet spot in the middle: Why do mid-scale farms adopt diversification practices at higher rates?*
- Morales, K., Gillispie, E.C., Chapman, S., Abadie, T., **Esquivel, K.**  
*Bridge Scholars: A Joint Effort between SACNAS and the Societies to Integrate Latinx and Native American Students in Agricultural and Environmental Sciences*
- Durso, L.M., Carter, T., Obour, A.K., Anderson, C., Caldeira Rocateli, A., Duncan, C., **Esquivel, K.E.**, Gillispie, E.C., Peterson, B., Prosser, Koch, G., Law, E.P., Michitsch, R.C., University of Wisconsin-Stevens Point, Stevens Point, WI, US, Renae Reddy, K.R., Serba, D.D., Sprunger, C.D., Sullivan, T., Wade, J., Wiley, Z., Ying, S.C., Zwonitzer, M.R., Abadie, T., Corteva Cummings, D.P., Daroub, S.H., Salvo, S.  
*ASA, CSSA, SSSA Diversity, Equity, and Inclusion Committee Showcase Poster*

**SACNAS NDiSTEM San Juan, PR**

October 2022

- **Esquivel, K.E.**, Morales, K., Gillispie, E.C., Daroub, S.H., Castellano, M.  
*From Water to Wine - Implementing innovative techniques in agricultural and soil sustainability*

**PBHL 290: Transforming Food Systems, Berkeley, CA**

September 2022

- **Esquivel, K.E.** *Agroecology, Soil Carbon Sequestration, and Food System Transformation*

**EcoFarm Conference, remote**

March 2022

- Bowles, T., **Esquivel, K.E.**, Waterhouse, H., Karp, D.  
*Research Report-Back: Soil Health on Organic Farms in the Central Coast*

**ASA, CSSA, and SSSA Annual Meeting, Salt Lake City, UT**

November 2021

- **Esquivel, K.E.**, Waterhouse, H., Libbey, K., Bowles, T.M.  
*Soil Carbon Concentrations across a Gradient of Soil Health Practices on Organic Lettuce Farms*

**School of Marine and Environmental Affairs, Seattle, WA**  
*Environmental Justice Speaker Series*

November 2020

- **Esquivel, K.E.** & Mgbara, W. *Building a Community of Anti-racist Environmental Scholarship.*

**Geological Society of America, Seattle, WA**

July 2017

- Kidwell, S. M., Meadows, C.A., Lowe, C.J., Lyons, S., Macdonald, T.A., **Esquivel, K.E.**, Haraldsdottir, E., Vishny, D.

*Using Bivalve Live-Dead Mismatch to Evaluate the Footprint of Municipal Wastewater in Marine Waters, Victoria, British Columbia.*

**University of Chicago Undergraduate Research Symposium, Chicago, IL** October 2016

- **Esquivel, K.E.** *Effects of Gregarine Parasitism on Survivorship and Morphology in Calopteryx Maculata*

**IMPACT National Conference, Los Angeles, CA**

February 2015

- **Esquivel, K.E.**, Xu P., *The Ivory Tower: The Role of Universities in Community*

## General Audience Scientific Outreach and Communication

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- Interviewed by the BBC World Service for [Life in soil: The psychology of soil in California](#) (2022)
- [Diversified Farming Hits Hurdles in Californias Central Coast](#). Interviewed by Berkeley Food Institute on Esquivel & Carlisle et al. (2022)
- [The Sweet Spot For Farms To Enhance On-Farm Biodiversity](#). Blog post for the National Sustainable Agriculture Coalition. Co-written with Patrick Bauer
- [Is there a Sweet Spot in the Middle?](#). Article written by the California Climate and Agriculture Network

## Scientific Society Affiliations

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**Soil Science Society of America**, member, 2021 - present, DEI Committee Representative

**Society for the Advancement of Chicanos & Native Americans in Science**, member, 2017 - present

## Professional Experience

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**University of Chicago Institute of Politics** September 2015 - June 2016  
*Intern for Student Civic Engagement* Chicago, IL

**US State Dept. Bureau of Oceans & International Environmental and Scientific Affairs** June 2015 - September 2015  
*Environmental Health Research Intern* Washington D.C.

**University of Chicago Community Service Center** September 2014 - June 2015  
*Intern for Social Justice Initiatives* Chicago, IL

**Rebuild Foundation** June 2014 - September 2014  
*Intern for Community Garden Initiatives and Maintenance* Chicago, IL

**Environmental Protection Agency, Region 5** June 2013 - September 2013  
*Extern for the Department of Air and Radiation* Chicago, IL

## Technical Skills

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**Statistics and Analysis**

R (advanced), Python (basic), SPSS (basic), Photoshop, ArcGIS (basic), linear regression, network analysis

**Languages**

Japanese (advanced), Spanish (advanced), French (basic)

**Field Skills**

Insect catching, handling, and ID, basic plant ID, small rodent trapping and handling, SCUBA, snorkeling, bivalve and gastropod ID