

# JORDAN WINGENROTH

jmwingenroth@ucsb.edu  
jmwingenroth.github.io

## EMPLOYMENT

<b>Data Scientist</b>   emLab @ University of California, Santa Barbara	2025 – Current
<b>Research Associate</b>   Resources for the Future, Washington, DC	2021 – 2025
<b>Laboratory Manager</b>   University of California, Berkeley	2018 – 2021
<b>Graduate Student Researcher</b>   University of California, Berkeley	2016 – 2018
<b>Research Assistant</b>   Woods Hole Oceanographic Institution	2015
<b>Research Assistant</b>   University of California, Santa Cruz	2014

## EDUCATION

<b>M.S.</b> in Environmental Science, Policy, and Management (UC Berkeley)	2019
<b>B.S.</b> in Environmental Science, Minor in Physics (Northeastern University)	2016

## WORKING PAPERS

**Wingenroth, J.M.**, Prest, B., Rennels, L., Rennert, K., Errickson, F., and Anthoff, D. Accounting for biodiversity loss raises the social cost of CO<sub>2</sub>. RFF Working Paper 24-23 (2024).

## JOURNAL ARTICLES

4. Gorski, G., Larsen, L., **Wingenroth, J.M.**, Zhang, L., Bellugi, D., and Appling, A. Stream nitrate dynamics driven primarily by discharge and watershed physical and soil characteristics at intensively monitored sites: Insights from deep learning. *Water Resources Research* (2024).
3. Rennert, K., Errickson, F., Prest, B., Rennels, L., Newell, R., Pizer, W., Kingdon, C., **Wingenroth, J.M.** Cooke, R., Parthum, B., Smith, D., Cromar, K., Diaz, D., Moore, F., Müller, U., Plevin, R., Raftery, A., Ševčíková, H., Sheets, H., Stock, J., Tan, T., Watson, M., Wong, T., and Anthoff, D. Comprehensive evidence implies a higher social cost of CO<sub>2</sub>. *Nature* (2022).
2. **Wingenroth, J.M.**, Yee, C., Nghiem, J., and Larsen, L. Effects of stem density and Reynolds number on fine sediment interception by emergent vegetation. *Geosciences* (2021).
1. Stein, S., **Wingenroth, J.M.**, and Larsen, L. A functional form for fine sediment interception in vegetated environments. *Geosciences* (2021).

## OTHER PUBLICATIONS

*Unpacking the Department of Energy's Report on US Liquefied Natural Gas Exports* (2025), with Brian C. Prest and Alan Krupnick. Resources for the Future Issue Brief.

*Converting Forests to Solar Facilities: Causes, Potential, and Implications* (2025), with David N. Wear and Ann Bartuska. Resources for the Future Report.

*Challenges and Opportunities for Incorporating Climate Change's Impacts on Ocean Systems into the Social Cost of Greenhouse Gases* (2024), with Brian C. Prest and Frank Errickson. Resources for the Future Report.

*Increasing the Representation of Earth System Feedbacks in the Social Cost of Carbon Dioxide* (2024), with David Anthoff, Brian C. Prest, Kevin Rennert, and Frank Errickson. Report prepared for the U.S. Environmental Protection Agency.

*Operational versus Capital Expenditure Risk in a Clean Energy Transition* (2024), with Brian C. Prest. Resources for the Future Report.

*The Economic Benefits of Achieving the Paris Agreement Goals* (2023), with Brian C. Prest and Kevin Rennert. Resources for the Future Issue Brief.

*Will Nations Meet the Paris Agreement's Emissions and Temperature Goals?* (2023), with Brian C. Prest and Kevin Rennert. Resources for the Future Issue Brief.

*Downscaling U.S. Population, Demographic, and Economic Growth Projections: Methodology Review and Recommendations* (2023), with Jasmina Buresch, Jason Jones, Matthew Hauer, Adrian E. Raftery, Kevin Rennert, Hana Sevcikova, and David Wear. Report prepared for the U.S. Environmental Protection Agency.

*The Social Cost of Carbon: Reaching a New Estimate* (2022), with Brian C. Prest and Kevin Rennert. Resources Magazine.

*Global Energy Outlook 2022: Turning Points and Tension in the Energy Transition* (2022), with Daniel Raimi, Erin Campbell, Richard G. Newell, Brian C. Prest, and Seth Villanueva. Resources for the Future Report.

*Public Comment: Updated Estimates of the Social Cost of Methane for Usage in Regulatory Analysis* (2022), with Brian C. Prest, Kevin Rennert, Richard G. Newell, William A. Pizer, David Anthoff, Frank Errickson, and Lisa Rennels.

*Working Toward a New Social Cost of Carbon* (2021), with Kevin Rennert, Brian C. Prest, William A. Pizer, Richard G. Newell, David Anthoff, Cora Kingdon, Lisa Rennels, Roger Cooke, Adrian Raftery, Hana Ševčíková, and Frank Errickson. Resources Magazine.

*Final Report: Cumulative Risk Assessment of Local Produce Exposed to Urban Wildfire Smoke* (2019), with Vanessa Raditz, Julia Van Soelen Kim, Mimi Enright, Rob Bennaton, and Suzi Grady. University of California Cooperative Extension Report.

*The Effects of River Drydown and Pool Isolation on Terrestrial Vertebrates in an Intermittent River* (2019). Master's thesis.

## TEACHING

Guest lecturer, *Comprehensive Evidence Implies a Higher Social Cost of CO<sub>2</sub>*. School of Public Affairs, PUAD 685: Topics in Policy Analysis and Management. American University (Fall 2023).

Graduate student instructor, Department of Environmental Science, Policy, and Management, ESPM115C: Fish Ecology. University of California, Berkeley (Spring 2017, Spring 2018).

## PROFICIENCIES

**Concepts:** applied statistics, automated coding, cloud computing, data wrangling and visualization, geospatial analysis, machine learning, numerical methods, relational databases, remote sensing, reproducible research, shell scripting

**Tools:** AWS, Claude Code, GIS, Git, GitHub, Julia, Jupyter notebooks, Keras, L<sup>A</sup>T<sub>E</sub>X, MATLAB, Model Context Protocol, Python, R, SQL, Stata, tidyverse.org

## OTHER AFFILIATIONS & EXPERIENCE

<b>Member</b> , emLab AI Task Force, UCSB	2025 – Current
<b>Member</b> , American Economic Association	2025 – Current
<b>Chair</b> , RFF AI Working Group	2025
<b>Member</b> , RFF Data Governance Working Group	2023 – 2025
<b>Consultant</b> , SNHU Innovation Center	2018 – 2019
<b>Consultant</b> , UCCE Sonoma County	2017 – 2019
<b>Member</b> , American Fisheries Society, California-Nevada Chapter	2017 – 2018
<b>Scientist</b> , HOT & SCOPE cruises, RV <i>Kilo Moana</i>	2015

HONORS &  
AWARDS

**Oliver B. Lyman Wildlife and Fisheries Award**, UC Berkeley 2017  
**California-Nevada Chapter Travel Award**, American Fisheries Society 2017  
**National Merit Scholarship**, Northeastern University 2011 – 2016

PRESENTATIONS

**2020:** American Geophysical Union Fall Meeting  
**2019:** American Geophysical Union Fall Meeting  
**2017:** Annual Meeting of the American Fisheries Society

MENTORSHIP

RFF summer interns: Kosisochuku Onwuamaegbu, Carolina Estevez Loza  
UC Berkeley research assistants: Candace Yee, Justin Nghiem, Yayla Sezginer, Elle Chen, Nicole Ulakovic, Katrina Ginsberg, Danielle Satin, Sylvia Targ, Carol Tsai, Michael Bui, Ben Pridonoff, Elizabeth Fan, Karen Phan, Sally Dowd, Nancy Rose, Travis Lange, Sean Chang