

Jeremy Lowe

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Education

- B.S. in Environmental Engineering, North Carolina State University, 2021 **3.89 GPA**
- *Honors* – Caldwell Fellowship, Les and Elaine Hall Water Environment Stewardship Scholarship, Barry & Linda Horton Scholarship, Thomas G. Coffey Scholarship, NC State Engineering Faculty Senior Scholarship Nominee

Research

PhD in Environmental Engineering, UC Berkeley

August 2022 – Present

Primary Investigator: Dr. Amy Pickering

- Lead study in rural Northern Kenya focused on characterizing pathogen transmission pathways for young children in their household environmental. Managed intensive data collection efforts including household surveys, structured observations, and an environmental sampling campaign in 100 households.

Research Assistant, NC State University

October 2018 – May 2022

Primary Investigator: Dr. Angela Harris

- Systematic review of literature relating to multiple water source use in low- and middle-income countries.
- Lead pilot study in Uganda and Kenya related to household water source use, enteric pathogen transmission pathways, and microbial source tracking. Piloted household surveys and processed environmental samples.
- Developed a protocol and device for dead-end ultrafiltration of large volumes of water for microbial analysis, implementing this device in field water sampling in Indonesia in February 2020.
- Evaluated the impact of a poultry management training intervention in rural Uganda on household poultry management practices and child health outcomes. Developed key indicators of poultry feces management and investigated their social determinants using regression models.

Publications and Presentations

Publications

- **J. Lowe**, A. Ercumen, C. Prottas, and A. R. Harris, “Exploring the determinants and indicators of poultry feces management behaviors in rural Western Uganda,” *Sci. Total Environ.*, vol. 834, p. 155202, Aug. 2022, doi: 10.1016/J.SCITOTENV.2022.155202.
- S. W. Daly, **J. Lowe**, G. M. Hornsby, and A. R. Harris, “Multiple water source use in low-and middle-income countries: a systematic review,” *J. Water Heal. |*, vol. 19, 2021, doi: 10.2166/wh.2021.205.
- UNC Water Institute, “WASH Policy Research Digest: Issue #11, June 2019: Multiple Water Source Use,” 2019.
- **J. Lowe**, “The Mulberry Tree,” in *Windhover LIV*, 54, X. Smith, Ed. Windhover, 2020, pp. 32–33.

Presentations

- **J. Lowe**, A. Ercumen, C. Prottas, and A. Harris, “Exploring the Determinants and Indicators of Poultry Feces Management Behaviors in Rural Western Uganda,” poster presented at UNC Water and Health Conference, 2020.
- **J. Lowe**, A. Ercumen, C. Prottas, and A. Harris, “Investigating Poultry Feces Risk Perceptions and Management Self-Efficacy in Rural Uganda,” verbal presentation at UNC Water and Health Conference, 2021.

Leadership and Development

Caldwell Fellows

February 2018 – December 2021

- Focused on character and leadership development, this prestigious fellowship aims to create the next generation of thoughtful servants and leaders. Each cohort consists of 25 students vetted by a rigorous application process.
- Lead diversity, equity, and inclusion work and civic conversations pertaining to racial justice across the program and greater community as part of the Campus Conversations Project.

President of Engineers Without Borders – NC State (EWB-NCSU)

November 2018 – January 2020

- Lead the executive board and four project teams of NC State’s chapter of Engineers Without Borders in their mission of empowering communities and equipping leaders through sustainable engineering projects. Alongside my team, managed a budget of \$40,000+, completed implementation and monitoring phases of three projects, bolstered fundraising efforts and raised over \$15,000 in grants, formed partnerships with other like-minded organizations through the creation of an advisory board, and strengthened a community with value on service and humility.

Chairperson of the EWB-NCSU Advisory Board

January 2021 – Present

- Founded the inaugural advisory board for EWB-NCSU, which includes past alum of the chapter and local partners. The advisory supports students in their self-growth and mission in serving partner communities, as well as extends the chapter’s network to foster its continued growth through new partnerships.