

ALLISON CLONCH PHD

ENVIRONMENTAL & OCCUPATIONAL HEALTH SCIENTIST

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I am an environmental and occupational health scientist whose work takes an interdisciplinary approach to human health and well-being. My training pairs epidemiological and qualitative methodologies, with topics ranging from climate-related exposures to mental health. I am also fluent in public health practice, with experience in strategic planning, intervention design, and policy and program evaluation.

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EDUCATION

PhD, Environmental & Occupational Health Sciences

2021 - 2026

University of Washington, School of Public Health, Seattle, WA

- Dissertation: *Psychosocial Hazards at Work: Organizational Stressors, Interpersonal Exposures, and Mental Health across U.S. Working Populations*. Advisor: Marissa G. Baker.

MSPH, Environmental Sciences & Engineering | MCRP, Land Use & Environmental Planning

2016 - 2019

University of North Carolina at Chapel Hill, Chapel Hill, NC

- Thesis, Environmental Sciences & Engineering: *Water infrastructure and childhood blood lead levels: Characterizing the effects of exclusion from municipal services in Wake County (NC, USA)*. Advisor: Jacqueline MacDonald-Gibson.
- Thesis, City & Regional Planning: *Annexation and Water Utility Extensions in Wake County, NC: The Role of Race, Income, and Other Demographic Characteristics*. Advisor: Danielle Spurlock.

BS, Biological Sciences | BS, Nutrition Science | Minor, Agroecology

2011 - 2015

North Carolina State University, Raleigh, NC

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RECENT RESEARCH

Heat and wildfire smoke exposure among Washington's H-2A workforce

MANUSCRIPT IN PREPARATION

- Exposure assessment of temporary foreign agricultural workers in Washington state, linking H-2A certification records, PRISM gridded climate data, hourly EPA AQS monitor data, and satellite-mapped smoke plumes. Worker-days of exposure from 2020–2025 were estimated using the thresholds and exposure definitions of Washington's occupational Outdoor Heat and Wildfire Smoke Exposure rules. Exposure was also assessed overnight at temporary worker housing locations.
- Conditions regulated by each rule occurred most frequently when the number of workers was highest from August to October; compound exposure occurred most frequently at moderate severity of both exposures, where the rule thresholds require the fewest controls. Smoke frequently persisted overnight at temporary worker housing and after hot days, limiting the safe ability to ventilate for cooling at night.

Cyanobacterial blooms, aerosolized neurotoxins, and ALS mortality

ANALYSIS UNDERWAY

- Ecological study using satellite-derived cyanobacterial bloom metrics from two independent platforms, NASA OLCI and ESA MERIS, and county-level ALS mortality. Exposure was quantified through aerosol transport modeling with ERA5 wind fields and through residential proximity and drinking-water pathways, with negative control outcomes used to probe confounding. While the model and parameters are still being finalized, initial results suggest a relationship between modeled aerosolized cyanobacterial plumes and ALS mortality.

Interpersonal work environment and mental health among U.S. mariners

MANUSCRIPT IN PREPARATION

- Using a 2025 national survey of U.S. mariner mental health and wellbeing, latent profile analysis identified profiles of the interpersonal work environment as derived from indicators on both negative and positive interpersonal experiences along with onboard social support: Supportive, Isolating, and Hostile profiles emerged. The profiles were then used in adjusted regression models of mental health and of intent to leave the maritime industry, where the Hostile and Isolating profiles were associated with poorer mental health outcomes and higher intent to leave.

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RESEARCH EXPERIENCE

Graduate Research Assistant

2021 - 2026

University of Washington, Seattle, WA

- Conducted dissertation research on psychosocial hazards and mental health across U.S. working populations, including a linkage of 2023 NHIS and O*NET occupational data.
- Built and managed multi-source research datasets across projects; conducted analyses in R.

Associate Director for Data Science and Evaluation

2019 - 2021

Project Lazarus, Moravian Falls, NC

- Directed evaluation of federally funded substance use prevention, recovery, and harm reduction programs serving rural Appalachian communities; evaluation lead on up to five concurrent grants.
- Partnered with local health departments, school boards, and community organizations across Wilkes, Ashe, and Alleghany counties; designed and facilitated focus groups with community leaders and the recovery community.

Graduate Research Assistant

2018 - 2019

Department of Environmental Sciences & Engineering, UNC Chapel Hill

- Co-investigator on study exploring the relationship between household drinking water source, particularly well water, and childhood blood lead levels.

Analytical Chemistry Research Scholar

2017 - 2018

Research Triangle International, Durham, NC

- Analyzed biological and environmental samples by ICP-MS and ICP-OES under Good Laboratory Practice standards; managed quality control procedures.

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TEACHING

University of Washington

Environmental Risk Assessment

TEACHING ASSISTANT, FOUR ACADEMIC YEARS

Department of Environmental & Occupational Health Sciences

Global Environmental Change and Public Health

TEACHING ASSISTANT

Toxic Chemicals and Human Health

TEACHING ASSISTANT

Introduction to Food and the Environment

DISCUSSION SECTIONS

Food Systems: Individual to Population Health

DISCUSSION SECTIONS

Environmental science course

LED WEEKLY FIELD TRIPS

University of North Carolina at Chapel Hill

Environment and Society

RECITATION SECTIONS

COMMUNITY-ENGAGED & ENVIRONMENTAL JUSTICE WORK

- **Irongate Drive drinking-water access, Apex, Wake County, NC:** community interviews and surveys supporting a successful campaign for municipal water service extension to a majority African-American community.
- **Environmental Justice Working Group, UNC Chapel Hill:** collaborative team responding to community-presented environmental health concerns.
- **Racial Equity Institute, Groundwater training:** structural and historical analysis of racial inequity.

SERVICE & OUTREACH

Volunteer Salmon Counter

Community Salmon Investigation

EACH FALL

PEER-REVIEWED PUBLICATIONS

- 2025** Aldern CP, **Clonch A**. Neurotoxic metropolis: navigating inflammatory risks to brain health in urban environmental planning. *Journal of City Climate Policy and Economy*. 2025;3(2/3):223–244.
- 2025** Monsey LM, Harrington M, **Clonch A**, Spector J, Vignola EF, Baker MG. Exploring barriers and facilitators to well-being among logging industry workers: a mixed methods study. *International Journal of Forest Engineering*. 2025;36(3):248–263.
- 2025** **Clonch AC**, Monsey LM, Baker MG. Occupational stressors among U.S. maritime workers during the COVID-19 pandemic: a content analysis by age and gender. *Journal of Occupational and Environmental Medicine*. 2025;67(10):856–861.
- 2023** **Clonch AC**, Harrington M, Spector J, Monsey LM, Baker MG. Exploring determinants of log truck accidents resulting in injury or fatality in the Northwest United States between 2015–2019. *International Journal of Forest Engineering*. 2023.
- 2020** Gibson JM, Fisher M, **Clonch AC**, MacDonald JM, Cook PJ. Children drinking private well water have higher blood lead than those with city water. *Proceedings of the National Academy of Sciences*. 2020;117(29):16898–16907.
- 2019** **Clonch AC**, Fisher M, Gibson JM. Water infrastructure and childhood blood lead levels: characterizing the effects of exclusion from municipal services in Wake County (NC, USA). *International Journal of Child Health & Human Development*. 2019;12(4):425–433.

SELECTED CONFERENCE PRESENTATIONS

- EPICOH 2025, Poster Presentation, Utrecht, Netherlands, 2025.
- Break the Cycle of Children's Environmental Health Disparities Conference, Oral Presentation, Emory University, 2019. *Best Oral Presentation Award*.

GRANTS, FELLOWSHIPS & AWARDS

- NIOSH Education and Research Center Traineeship, University of Washington and University of North Carolina at Chapel Hill
- AAUW Seattle, UW STEM Research Grant
- Harry Bridges Center for Labor Studies, Graduate Research Award, University of Washington
- DEOHS Castner Endowed Research Award and DEOHS Travel Award, University of Washington