

Weston Slaughter

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WORK & RESEARCH EXPERIENCE

Oak Ridge Institute for Science and Education- Durham, NC (November 2020 – Present)

Fellow at US EPA Office of Research and Development, Center for Public Health and Environmental Assessment

- Developing NaKnowBase (NKB)- a database of EPA nanomaterials research- to interface and exchange with databases outside of the EPA using Python and semantic technologies such as RDF, OWL, and SPARQL
- Collaborating with US and EU federal agencies and universities to develop software and standards to integrate NKB, and potentially FDA, NIOSH, and other US federal databases, into accepted international ontologies
- Statistical analysis of nanomaterials data and related data of environmental and public health concern
- Writing, analysis, and support for manuscripts communicating research and developed technologies

Sierra Streams Institute (SSI) – Nevada City, CA (October 2019 – August 2020)

River Scientist, AmeriCorps

- Developing a structural equation model of the effects of climate change and land use on a 20-year water quality dataset, including data curation and multivariate data analysis (ordination, z-plots, etc.) Manuscript in progress
- Extracted and analyzed data from satellite imagery and rasters using R and Google Earth Engine (Javascript API)
- Assisting a study exploring the potential link between contaminants from legacy mining (As, Cd, Pb, Hg) to breast cancer rates in rural Northern California, and building a web portal for this study in Python's Django framework
- GIS and spatial data analysis for guiding, proposing, and reporting on SSI projects
- Data analysis and visualization for a study investigating *E. Coli* outbreaks in a densely populated lake

California SeaGrant Russian River Monitoring Program – Windsor, CA (October 2018-August 2019)

Environmental and Fisheries Technician, AmeriCorps

- Conducted salmonid life cycle monitoring through trapping, PIT tagging, snorkeling, electrofishing
- Stage, flow, temperature, dissolved oxygen data collection, management, and analysis in R and Excel

Power River Ecology Lab – Berkeley, CA (Fall 2016 – Fall 2018)

Researcher & Field Technician

- Analyzed salmonid feeding behavior using 3-D videogrammetric techniques (VidSync)
- Performed analysis such as linear biomass regression, rating curves, and channel geometry in R and Excel

Grantham Freshwater Science and Management – Berkeley, CA (June 2017-Fall 2019)

Researcher & Field Technician

- Co-designed a BACI study on the effect of flow augmentation on salmonid foraging behavior and the phenology of stream food webs; authored on a manuscript from this study, submitted to *Ecological Applications*

SKILLS

Programming: Python, R, SQL, JavaScript, Git, Bash, Shell, Markdown, SPARQL, HTML, CSS, RDF/OWL, C++

Software: Google Earth Engine, ArcGIS, Postgres/MySQL, HOB0, BioMark, FlowTracker, Django, Flask

EDUCATION

University of California, Berkeley – May 2018

Bachelor of Science in Molecular Environmental Biology; Minor in Forestry