Hunter Jamison

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RESEARCH INTERESTS

Isotopic Geochemistry, River Solute Fluxes, Stable Isotope Hydrology

EDUCATION

B.A. Environmental Earth Science (2020) - University of California, Berkeley

PHD Low Temperature Geochemistry (expected 2027) – Cornell University

PROFESSIONAL EXPERIENCE

Laboratory and Field Technician, Eel River Critical Zone Observatory: January 2021 – July 2022

- Served as primary manager of field sampling, sample storage and data organization for the Eel River CZO on multiple long-term research projects, including collection of tree cores/twigs and water samples from the vadose zone and groundwater for dD and d18O isotopic analysis; collection of samples for carbon stable isotopes, cations, anions, organic acid, pH and alkalinity, total carbon, total nitrogen and inorganic nitrogen
- Analyzed isotopic data for hydrogen and oxygen stable isotopes with R.
  Reported progress on sample collection and processing on a weekly basis to the lead PI, and distributed data among a team of 5 other PIs and 4 graduate students regularly.
- Ordered field and laboratory supplies, contacted suppliers to fix/troubleshoot equipment errors and worked with project members to catalog each sample collected as a part of the Eel River CZO program from 2015-2021

Student Research Assistant, Eel River Critical Zone Observatory: August 2018 –January 2021

- Assisted the field technician at for the Eel River CZO.
- Collected tree cores/twigs for cryogenic extractions.
- Extracted water from samples using the cryogenic extraction method and prepped water samples for infrared mass spec analysis at the Center for Stable Isotope Biogeochemistry at UC Berkeley.
- Managed and regularly entered data into project database.
- Distributed data among 5 PIs and 4 graduate students and presented updates on field work and lab work to project members during monthly meetings and annual retreats.
- Analyzed isotopic data in R.

RESEARCH / FIELD WORK EXPERIENCE

Angelo Coast Range Reserve: 2018 – 2022

- Helped to collect and analyze 953 tree core samples, 101 tree stems, 413 stream water samples, 987 well water samples, and 987 vadose zone water samples for water stable isotopes.

- Assisted with a tracer experiment in May 2019 where I extracted water from collected samples cryogenically and prepped aliquots for mass spectrometry.
- Trained 4 undergraduate students and 2 graduate students on how to use a cryogenic extraction line for water isotope analysis.
- Pursued independent research project studying the variance of hydrogen and oxygen stable isotope ratios within tree cores collected at basal heights.

PUBLICATIONS

Sanders MA, **Jamison HT**, Rempe DM, Hahm WJ, Dietrich WE. "What is the Stable Isotope Moisture Record Generated in Soils and Shallow Saprolite Across a Seasonal Wet-up and Dry-down Cycle in a Mediterranean Climate?" In *Fall Meeting 2021*. AGU, 2021.

King, Evan, William Jesse Hahm, William E. Dietrich, David Dralle, Mielle Lee**, Hunter Thomas Jamison**, Kelsey L. Crutchfield-Peters et al. "The Evolution of Water Stable Isotopes Through the Critical Zone: Direct Observations from a Vadose-Zone Monitoring System at the Eel River Critical Zone Observatory." In *Fall Meeting 2022*. AGU, 2022.

TEACHING

- TA for EAS 3030 'Intro to Biogeochemistry': Fall, 2022 – 32 students
    - Ran discussion sections and review sessions for midterms
    - Graded homework, midterms, and finals
    - Held multiple office hours each week to help students with material
    - Gave lecture on Oxygen and Hydrogen Stable Isotopes

- TA for EAS 2250 'The Earth System': Spring, 2023 – 48 students
    - Held and graded lab sections
    - Had office hours for students

MEMBERSHIPS / AFFILIATIONS

- **American Geophysical Union**: 2021
- **Snee Graduate Organization**: 2023 (Vice President/Treasurer)
- **Biogeochemistry, Environmental Sciences and Sustainability (BESS) Graduate Student Association**: 2023

SKILLS

[1] Proficient in using R to manage datasets and make plots relevant to ongoing projects
[2] Proficient in using R's ggplot2, dplyr, and lubridate packages
[3] Experienced in planning multi-day field campaigns to collect various types of samples for environmental monitoring and biogeochemical research
[4] Confident in troubleshooting and solving equipment errors in field and laboratory settings

[5] Able to incorporate new fieldwork tasks efficiently to maintain consistent data collection
[6] Understanding on how to use micropipettes, systems under vacuum, liquid nitrogen, cryogenic extractions for IRMS analysis, and acid baths to clean equipment for the field.