

CU-Boulder Critical Zone Postdoctoral Research Associate

<https://jobs.colorado.edu/jobs/JobDetail/?jobId=27078>

Position Description:

The Institute of Arctic and Alpine Research (INSTAAR) at the University of Colorado-Boulder is seeking a Postdoctoral Research Associate to conduct research within a new “critical zone” research project. The Earth’s critical zone is defined as the upper layer of the Earth’s surface—from bedrock to the tree canopy—and is dependent upon the co-evolution of Earth system processes including interactions among climate, hydrology, biogeochemistry, and geology. Our critical zone project consists of five research catchments in Colorado and California and is led by a collaborative team of nine researchers from six universities. The Postdoctoral Research Associate will synthesize data from across the research sites and develop new research areas addressing fundamental questions about the feedbacks among critical zone processes. Research areas include but are not limited to how subsurface water storage controls streamflow quantity and quality, evapotranspiration, as well as aboveground carbon and how forest ecosystems, in turn, control subsurface flowpaths and weathering. The project provides ample opportunities for both numerical modelers and field scientists. The successful applicant will be supervised by Dr. Holly Barnard (CU Boulder) and will work with the project team of collaborators. The initial assignment will be for one year with the possibility of extension up to two years total. We strongly encourage individuals from underrepresented groups in earth and environmental sciences to apply. The preferred start date is January 1, 2021, but can be sooner.

Key Responsibilities:

- Conducting collaborative and independent research related to critical zone topics such as ecohydrology, biogeochemistry or hydrogeology
- Writing peer-reviewed research papers
- Participating in project education and outreach activities.

What the applicant should know:

- The applicant will work in residence at the Institute of Arctic and Alpine Research (INSTAAR) at the University of Colorado.
- Ability and willingness to travel to field sites in Colorado and California for up to two weeks at a time. Local travel may occasionally require personal vehicle use.
- Visa sponsorship is unavailable for this position.

What we can offer: Starting Salary = \$55,000

Minimum Qualifications:

Minimum requirements include a PhD degree in the natural or environmental sciences, engineering or related fields, demonstrated experience with developing novel research questions and publishing original, peer-reviewed research in journals appropriate for the field. Completion of the PhD can be pending (soon to be completed) but will require verification from the dissertation supervisor.

Required Competencies/Knowledge, Skills and Abilities:

- Excellent communication skills, both verbally and written, including listening and responding to questions effectively

- Ability to respond constructively to others' ideas and suggestions and a willingness to develop creative solutions to challenges that arise
- Knowledge and experience with Earth science field data collection or modeling methods.
- Knowledge and skill in data analysis using modern software such as R, Matlab, Python.
- Proficiency with basic computer software including the Microsoft Office suite, as well as, online collaboration tools such as Microsoft Teams or Google Drive.
- Must have the ability to pay close attention to details and keep clear and accurate records
- Willingness to learn new methods or skills related to project goals
- Must be able to work effectively with minimal daily supervision.

Desired qualifications:

- Interest and skills in mentoring students
- Demonstrated leadership in research, outreach, and/or education.
- Interest and ability to engage with others across the National Critical Zone Network