

### **POSITION SUMMARY:**

We are seeking a post-doctoral researcher to participate in a project examining microbial mechanisms of soil carbon stabilization across large environmental gradients in Utah. The project is aimed at understanding how microbial physiology (carbon use efficiency and enzyme production) and community structure impact long-term fate of litter-derived carbon in mineral soil. The position is for one year with the likelihood of extension up to 2 years total.

### **RESPONSIBILITIES:**

The successful candidate will be responsible for a number of duties and be expected to:

1. Work in a collaborative team to carry out research objectives.
2. Participate in fieldwork at sites across Utah and analyze soil and plant tissue samples in the lab.
3. Maintain a solid publication record.
4. Be well-versed in the current literature in soil biogeochemistry, soil microbial ecology, and ecosystem ecology.
5. Analyze data and prepare material for publication and presentation both in written and oral formats.
6. Be responsible for the maintenance of the laboratory and its daily operation. This includes, but is not limited to: managing undergraduate researchers, assisting graduate students and senior personnel, ordering and receiving laboratory supplies, and maintaining laboratory and field equipment.

### **MINIMUM QUALIFICATIONS:**

1. A Ph.D. in ecology or a closely related discipline is required
2. Strong oral and written communication skills, as evidenced by conference presentations and publications in peer-reviewed journals
3. Laboratory experience with standard soil biogeochemistry protocols (soil nutrient and microbial biomass extraction, soil enzyme assays) and equipment (e.g. elemental/organic carbon analyzers, microplate readers, and LI-COR 8100)
4. Ample experience designing ecological experiments and conducting fieldwork in remote natural areas
5. Basic familiarity with biostatistics and the R programming language
6. Experience mentoring undergraduate students

### **PREFERRED QUALIFICATIONS:**

1. Previous experience working with stable isotopes
2. Previous experience with techniques for assessment of ecosystem carbon stocks (e.g. construction of litter traps, dendrometers, and root ingrowth cores)

### **WORK ENVIRONMENT:**

This position requires the application to perform fieldwork and conduct laboratory research in biogeochemistry and molecular biology. Candidates should be able to hike moderately long distances while carrying sampling equipment and soil samples, and be comfortable camping for brief periods (< 1 week). Field conditions may be characterized by extreme temperatures, biting insects, and unpredictable encounters with wildlife; thus, prior fieldwork experience is required. Standard laboratory protocols in biogeochemistry involve chemicals that may be caustic, toxic, or volatile; the candidate is expected to have ample wet lab experience and to comply with all the rules and regulations established by USU's department of Environmental Health and Safety.