

Postdoctoral Research Scholar on "Assessing the biophysical drivers of the CH₄ source sink transition in Northern Forests" at the School of Life Sciences (SOLS), Arizona State University.

Location

Tempe Campus

Full/Part Time

Full-time

Regular/Temporary

Regular fiscal appointment

Estimated Start Date

2/1/2023

Position type

This is a grant-funded position. Continuation is contingent on future grant funding. This position is expected to run for two consecutive years. The second-year renewal is contingent upon satisfactory progress and contribution to the collective program.

Hiring range

\$49,000 to 53,000 annually, benefits-eligible.

The College of Liberal Arts & Sciences values our cultural and intellectual diversity and continually strives to foster a welcoming and inclusive environment. We are especially interested in applicants who can strengthen the diversity of the academic community.

Job description

Terrestrial ecosystems are undergoing a broad range of responses to climate change, and in particular feedbacks leading to ecosystem transitions from greenhouse gas sinks to sources demand immediate attention. Forested ecosystems like transitional subboreal forest provide an important case to study transitions from methanotrophic to methanogenic activities and microbial functioning relevant for large areas of the northern forests.

We are part of a collaborative effort (NSF funded project) bringing together researchers from five institutions (ASU, SDU, UM, Emory and Woodwell Climate Research center as lead) to evaluate how environmental controls merge with biological processes and thus decipher the mechanisms, processes, and functional relationships driving CH₄ sink/source activity from the microsite to landscape level in the Howland Research Forest. This large project will integrate multi-scale field- and lab-based experimental observations of CH₄ production, CH₄ oxidation, stable carbon isotopes, microbial analysis, and modeling.

A Postdoctoral researcher, to be based at ASU, will lead efforts to advance our understanding of microbial physiology and microbial ecology of methanogens and methanotrophs in the soils. Starting of position is flexible but February 1, 2023 is desired.

Essential duties

1. Contribute to high-resolution microbial mappings (DNA and RNA) associated to soil methane flux by combining field work measurements and laboratory-based data acquisition
2. Develop several experimental and computational activities seeking to integrate microbial operational genes (functional markers) and traits (kinetics) in culture and culture-free approaches to predict activity rates of microbial guild under field conditions
3. Write scientific papers associated with the research.
4. Travel to field work activities and meetings to present results.
5. Be an active member in research group activities (e.g., participate in lab meetings, mentor students, contribute to lab governance).

Minimum qualifications

1. Successful candidates must have earned doctoral degree, or the equivalent terminal degree in a relevant area such as Microbiology, Bioinformatics, Environmental Sciences, Atmospheric Sciences, Ecosystem Sciences, Geobiology, Environmental Engineering at the time of appointment.
2. Demonstrated dedication to solving microbial contribution to ecosystem problems through research and scholarship.
3. Must have the capacity to work effectively in interdisciplinary teams.
4. A demonstrated record of scholarly achievement, and excellent communication skills.
5. Proficiency in both written and spoken English.

Desired qualifications

1. Candidates with strong expertise in microbial ecology, computational or experimental genomics, or microbial physiology (gene expression) in the context of environmental change will be preferred.
2. Strong candidates should possess: (A) significant publication record (papers published, in press, or submitted), (B) creativity, independence, and the desire to learn, (C) abilities to design molecular and genomic evaluations, and (D) analytical, interpersonal, and presentation skills.
3. A demonstrated commitment to supporting and enhancing diversity, equity, and inclusion.

Department and project information

The School of Life Sciences (SOLS) has provided a vital hub for creative excellence at Arizona State University, with more than 670 faculty, graduate students, postdoctoral fellows and staff, and research that ranges from studies on biodiesel and biohydrogen to vaccine development and the conservation of whales. As ASU's first academic unit to fully reflect President Michael Crow's integrated, interdisciplinary vision for the New American University, the School of Life Sciences offers active and evolving platforms for collaborative, cutting-edge research and faculty whose discovery is freed from traditional institutional boundaries.

Arizona State University is a dynamic, progressive university dedicated to interdisciplinary collaborations, to rethinking university education, and to integrating excellence in research and teaching. The university has been ranked #1 for innovation by the US News & World Report for the past five years. ASU's School of Life Sciences is committed to curricular innovation in traditional and digital learning environments.

Instructions to apply

To review and apply for this position, please visit <http://apply.interfolio.com/117624>. Applicants must submit:

1. Cover letter and research interests. Applicants should describe experience and suitability for the position. Unlike a standard cover letter, this proposal should highlight the strengths of the applicant's experience towards developing and implementing proposed research. Applicants are encouraged to discuss relevant research questions, approaches, scientific significance, and significance to action-oriented research.
2. Curriculum vitae or resume.
3. Contact information (name, email and phone) for two or three references.
4. A brief description of past research accomplishments and future research goals.
5. A Diversity Statement

Application close date

The deadline will be December 28 at 3:00 p.m. AZ time.

All application materials due by December 28; Applications will continue to be accepted on a rolling basis for a reserve pool. Applications in the reserve pool may then be reviewed in the order in which they were received until the position is filled.

Background check is required for employment.

Arizona State University is a VEVRAA Federal Contractor and an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, protected veteran status, or any other basis protected by law. (See <https://www.asu.edu/aad/manuals/acd/acd401.html> and <https://www.asu.edu/titleIX/>.)

In compliance with federal law, ASU prepares an annual report on campus security and fire safety programs and resources. ASU's Annual Security and Fire Safety Report is available online at <https://www.asu.edu/police/PDFs/ASU-Clery-Report.pdf>. You may request a hard copy of the report by contacting the ASU Police Department at 480-965-3456.

COVID-19 Vaccination - Arizona State University is a federal contractor and subject to federal regulations which may require you to produce a record of a COVID-19 vaccination. For questions about medical or religious accommodations, please visit the Office of Diversity, Equity and Inclusion's webpage."