



OUTREACH NOTICE: POSTDOC- SOIL CO₂ FLUX
Northern Research Station, USDA Forest Service
Center for Accelerator Mass Spectrometry, LLNL



Post-doctoral Researcher: Soil Biogeochemistry

The USDA Forest Service, in collaboration with Lawrence Livermore National Laboratory, is advertising a Post-doctoral Researcher position with the Duty Station located in Livermore, California. The position will focus on terrestrial carbon cycle studies, with an initial appointment for 1 year, renewable annually for up to 3 years

***Questions about the position should be addressed to Chris Swanston at cswanston@fs.fed.us.
Application period closes February 1, 2015, or upon the selection of a qualified candidate.***

THE POSITION

The incumbent will work as a postdoctoral researcher within the [Climate, Fire, and Carbon Cycle Science Group](#) in the Forest Service Northern Research Station, and as a postdoctoral staff member in the Lawrence Livermore National Lab [Center for Accelerator Mass Spectrometry](#) (CAMS). The postdoc will interact with numerous projects, with a common theme of using radiocarbon as a tool to determine sources of CO₂ flux from ecosystems, characterize mean residence time of carbon in ecosystem reservoirs, and determine the influence of changing climate and land management decisions on C stocks and stability. Examples of these studies may include: the effects of warming on sub-boreal peat CO₂ and CH₄ emissions; variation in soil respiration and microbial substrate use among NEON field sites in the contiguous US; partitioning of heterotrophic and root respiration in forested ecosystems; and integration of soil carbon dynamics with flux tower measurements and modeling. Opportunities for leadership within each project will be determined in part by the skills and interests of the postdoc and by ongoing activities and staffing of a given project. In addition he/she will manage and assist in the flow of Forest Service samples through the CAMS laboratory and interact with Forest Service researchers and their partners in data interpretation. This position comes with numerous opportunities for building research collaborations and represents an unusual opportunity for a self-motivated individual interested in the large-scale application of AMS in the Earth Sciences.

This position includes the following duties:

- Conduct original and independent research as part of a multi-disciplinary team, collaborate in technique development and sample analysis in experimental programs to study terrestrial carbon cycling.
- Manage and assist in the flow of natural ¹⁴C samples through the CAMS laboratory, and participate in technique development, AMS operation, and data analysis as part of the overall activity of the Natural-radiocarbon Research Group.
- Publish results in peer reviewed literature and present research at professional meetings.
- Collaborate in overall research and measurement programs of Forest Service Research & Development and the LLNL Natural-radiocarbon Research Group.

This position requires a recent Ph.D. in atmospheric chemistry, ecology, microbiology, biogeochemistry, or a related field. Experience in soil carbon studies is highly desired, and experience in sample preparation, measurement techniques, and interpretation of stable isotope and ¹⁴C analyses is also desired, but not required.

THE LOCATION AND SUPERVISION

This position will be located at CAMS/LLNL in [Livermore](#), California. Livermore is located about 50 miles east of Berkeley, at the edge of the metropolitan San Francisco Bay Area, but retains a small town feel. The Livermore Valley has numerous attractions, including 20 wineries, numerous city and county parks and natural areas, excellent routes for road biking and trails for horseback riding, and close proximity by car or rapid transit to attractions in San Francisco, Berkeley, and Oakland.

This is a highly collaborative position. It will report to the Lead Scientist of the Natural-radiocarbon Research Group at CAMS on a day-to-day basis. Funding and overall supervision will come from the Climate, Fire, and Carbon Cycle Sciences group in the Forest Service Northern Research Station.