



EGCS
Earth, Geographic, and Climate Sciences



STOCKBRIDGE
SCHOOL of AGRICULTURE



Postdoc Position: Characterizing Controls on Forest Soil Properties and Carbon

March 26, 2025

Project Description

Come join this transdisciplinary team at UMass Amherst working in close collaboration with Massachusetts Division of Conservation and Recreation (DCR) to characterize forest soil condition and soil carbon content at a suite of long term forest plots across Massachusetts. Forest condition at these sites ($n \sim 2200$) is well characterized, with decadal forest surveys dating back to the 1950s. We are looking for a postdoc to lead lab work, data analysis, and summer field campaigns (with support). Significant experience in the field and the lab are essential. Summer field technicians will be available to assist with fieldwork, and undergraduate research assistants will assist with sample preparation under your guidance.

The project is funded for five years by MassDCR, with full support for this position, including benefits and funding for conference travel. The lead PI is the Massachusetts State Geologist, Brian Yellen (faculty in UMass EGCS), with co-investigators Paul Catanzaro (UMass forester), Ashley Keiser (UMass soil biogeochemist), Isaac Larsen (UMass geomorphologist), and Matt Winnick (UMass geochemist). The project will be highly collaborative with opportunities to supervise undergraduates and graduate students, work directly with affiliated investigator Katy Dynarski (USDA-NRCS), and build your professional network.

Essential skills and aptitudes:

- Designing and executing safe fieldwork campaigns focused on soil sample collection
- Soil sample processing and sample preparation
- Biogeochemical lab work and sample analysis (i.e. soil C and N pools and fluxes)
- Statistical analysis, including large datasets with multiple independent variables (forest attributes, surficial geology, geomorphology, etc)

Preferred Skills and aptitudes:

- Stable isotope geochemistry
- Soil carbon accounting
- Supervising undergraduate researchers
- Knowledge of Northeast US soils, geology, and forest dynamics

Responsibilities:

- Direct summer fieldwork campaign to collect soil samples

- Oversee laboratory analyses including stable isotope sample preparation and instrument operation
- Summarize data and lead publication(s) summarizing dominant controls on forest soil properties, including soil carbon

Details:

- \$67,000/yr plus benefits; annual raises. Full time equivalent.
- Start date: May 15, 2025 (some flexibility)
- Duration: 2-5 years (flexible)
- This is a mostly in-person position with fieldwork, lab, and coordination responsibilities. Arranging a WFH day outside of the summer field season may be feasible.

[APPLY HERE](#) - Google Form to upload a CV and cover letter; also list three references on the form. (If the link does not work: <https://forms.gle/mqCyybwTXbS7z4Wj8>)

Your cover letter should include: (1) Why the position appeals to you; (2) Your relevant experience and how it fits with listed skills and aptitudes; (3) How this position fits with your career goals.

Questions: please email Brian Yellen, byellen@umass.edu