

**Graduate Research Assistantships  
in  
Critical Zone Science**

We are seeking applicants for graduate research assistantships (one M.S. and two Ph.D.) in the study of mineral weathering and the fate of weathering products in forest ecosystems. Applicants are sought for a project supported by the NSF at the Hubbard Brook Experimental Forest ([www.hubbardbrook.org](http://www.hubbardbrook.org)) in New Hampshire. The study focuses on mineral weathering gradients at the hillslope and watershed scale and is aimed at improved prediction of soil and water quality in headwater catchments. Components of the project will include element fluxes, aqueous and solid phase geochemistry and mineralogy, modeling, and hydrologic characterization. The project will have a demanding field component that will require extensive travel and summer residence in New Hampshire. Students will work with faculty at Virginia Tech, the University of Vermont and scientists from the USDA Forest Service. A strong background in hydrology, forest soils, geochemistry, geology, and/or geospatial analyses is required. Competitive students should demonstrate excellent written and oral communication and analytical skills.

The M.S. and one Ph.D. position will be affiliated with the Departments of Geosciences ([www.geos.vt.edu](http://www.geos.vt.edu)) and Forest Resources and Environmental Conservation ([www.frec.vt.edu](http://www.frec.vt.edu)) at Virginia Tech. The students may also participate in interdisciplinary programs at Virginia Tech in cross-boundary biogeosciences ([www.biogeo.centers.vt.edu](http://www.biogeo.centers.vt.edu)) and global change ([www.globalchange.vt.edu](http://www.globalchange.vt.edu)). The other Ph.D. position will be affiliated with the Department of Plant and Soil Science (<http://www.uvm.edu/~pss/>) at the University of Vermont. The research will be collaborative; however, the Virginia Tech students will have a greater focus on solute fluxes, while the University of Vermont student will focus predominately on solid phase characterization.

At either university, graduate research assistantships provide a competitive annual stipend, full tuition waiver, and health insurance benefits. Additionally, graduate assistants are actively involved in the departmental teaching programs.

Points of contact at each institution are:

**Dr. Kevin McGuire**

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Virginia Water Resources Research Center, and  
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**Dr. Don Ross**

University of Vermont  
Dept. of Plant and Soil Science  
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Additional collaborators and points of contact include:

**Dr. Brian Strahm**

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**Dr. Madeline Schreiber**

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**Dr. Scott Bailey**

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