

**Two interdisciplinary PhD positions available at the University of Delaware to study climate and landscape controls on soil, water, and gaseous fluxes of carbon and nitrogen**

Two positions are available on a new and exciting USDA-funded project that explores how catchment topography and extreme weather events influence the solid, aqueous, and gas phase of C and N in soils and wetlands. We will combine state-of-the-art instrumentation for field measurements, a climate-change experiment, and conceptual and mathematical modeling to evaluate these responses.

For the first position the student will establish a climate-change experiment in order to collect continuously (hourly resolution) a full range of greenhouse gas (CH<sub>4</sub>, CO<sub>2</sub>, H<sub>2</sub>O, N<sub>2</sub>O, and NH<sub>3</sub>) fluxes from soils and study the solid and aqueous phases of C and N compounds in a temperate wetland. The candidate should have strong analytical and quantitative skills, experience in handling large data sets, proven skills in data processing and statistics (e.g., MATLAB, R), and experience with dataloggers and field instrumentation.

In the second position the student will explore how catchment topography and hydrology combine to influence the spatio-temporal patterns of C and N in soil, water, and gas phases. Landscape topography will be characterized using GIS whereas soil and water C will be analyzed using novel, rapid, spectrofluorometric techniques. The candidate should have a strong background in hydrology and biogeochemistry, knowledge of C and N cycles, and experience with field sampling.

Both of these students will be recruited through the exciting, interdisciplinary graduate program in Water Science and Policy ([www.udel.edu/watersciencepolicy](http://www.udel.edu/watersciencepolicy)) and will co-advised by Drs. Rodrigo Vargas and Shreeram Inamdar.

The positions are for 36 months with a starting date of February 1<sup>st</sup> 2014, and will remain open until filled with review of applications and interviews starting on November 1<sup>st</sup>. Outstanding UD student benefits include health, dental, and vision insurance plans; access to UD recreation and cultural activities; and more!

Applications and inquiries should be sent to Rodrigo Vargas ([rvargas@udel.edu](mailto:rvargas@udel.edu)) and Shreeram Inamdar ([inamdar@udel.edu](mailto:inamdar@udel.edu)). Applications should include (1) a detailed curriculum vitae, (2) statement on research interests and previous experience, (3) GPA and GRE scores, and (4) names, addresses, phone numbers, and email addresses of at least two references.

Please include in the headline of the email: PhD application for USDA grant

For more information visit our websites!

Rodrigo Vargas: <http://udel.edu/~rvargas/>

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