Two graduate positions (PhD) are available for qualified individuals to study response of peatland ecosystems to climate change at Michigan Technological University, in collaboration with the US Forest Service Northern Research Station. Three years of NSF support are anticipated for research, tuition and stipend, to work on the PEATcosm experiment conducted at the USFS mesocosm facility. In this experiment we are manipulating the presence of sedges and Ericaceae as well as water table to understand their effect on peatland carbon cycling.

(1) The first position is for a PhD student to work on questions related to carbon balance of northern peatlands as affected by changes in water table and plant functional groups. The primary research objective is to partition changes in carbon mineralization from change in net primary production in these ecosystems, in order to understand whether and how climate change alters carbon storage in peatlands. The successful candidate should have a background or strong interest in biogeochemistry, ecosystems ecology, plant physiological ecology, and/or peatland ecology. Demonstrated research experience, including scientific publications, is a plus.

(2) The second position is for a PhD student to work on questions related to microbial community structure and function in northern peatlands, as affected by changes in water table and plant functional groups. This candidate would work in close collaboration with the other PhD candidate described above, with the primary research objective to test hypotheses regarding the role of plant functional groups and water table in regulating microbial community structure and microbial mediation of carbon mineralization. The successful candidate should have a background or strong interest in fungal ecology, microbial ecology, and/or DNA-based methods of characterizing community structure and function. Demonstrated research experience, including scientific publications, is a plus.

Michigan Tech is located in the snowbelt (>200” annual snowfall) of Michigan's Keweenaw Peninsula on the South Shore of Lake Superior. The region is dominated by vast areas of lakes, forests and wetlands. Michigan Tech is in the small university town of Houghton, which was rated as one of the top 10 U.S. adrenaline outposts by National Geographic Adventure Magazine, boasting excellent skiing, hiking, kayaking and mountain biking. Michigan Tech's School of Forest Resources and Environmental Science doctoral program has been recently ranked fourth in the nation by Academic Analytics.

Consideration of applications begins immediately and will continue until the positions are filled. Start date is somewhat flexible, but ideally would be May 2012. Please send a cover letter that states your research interests, your curriculum vitae, and any other relevant materials, and provide the names and contact information for three references, by email to Evan Kane (eskane@mtu.edu) (Position 1) or Erik Lilleskov (elilleskov@fs.fed.us) (Position 2)