

Post-Doctoral Positions in Tropical South American Peatland Policy, Mapping, GHGs, and restoration

Three post-doctoral positions are available for qualified individuals to focus on 1) peatland national policy, 2) mapping land use and its impacts on greenhouse gas emissions, or 3) restoration of peatland function in mountain peatlands of the Peruvian, Ecuadorian, and Colombian Andes, as well as the Amazon of Peru and Colombia. The goals of these projects are

- to assess the current threats and policies affecting peatlands in all three countries
- improve our estimates of peatland distribution
- quantify the carbon cycle and greenhouse gas consequences of peatland degradation (grazing, drainage) and restoration
- develop credible GHG emissions factor estimates for CO₂ and CH₄ for degraded and restored peatlands, in support of national and international greenhouse gas accounting efforts

We are developing flux estimates using a variety of approaches, including site level experiments (chamber and tower-based), gradient studies, and landscape-level surveys. Additional field work will involve contributing to ground-truthing efforts for mapping of peatland distribution, condition, and GHG fluxes across the paramo and puna (high-elevation ecosystems) of these three countries. We will also be working to improve national peatland maps and develop credible estimates of peatland degradation in the Amazon basin of Peru. The post-docs would be expected to work collaboratively with each other and in-country partners to advance the goals of the overall effort. Depending on the successful applicants' skill sets and interests, opportunities are available to pursue additional questions, e.g., on mechanisms of plant, microbial, or biogeochemical regulation of peatland greenhouse gas flux. Qualified candidates need experience in ecosystem gas flux quantification, natural resource policy analysis, and/or peatland ecosystem research; Spanish language skills preferred; and experience working in Latin America, in peatland policy, carbon cycling, and/or peatland restoration are all a plus. Extensive travel and ability to work at both low and high elevations in rugged conditions are required for this position. Residents of these three countries are especially encouraged to apply.

The positions will be at Michigan Technological University, and jointly supervised by scientists at Michigan Tech and the US Forest Service, Northern Research Station in Houghton, MI. Houghton is a small university town located on the beautiful Keweenaw Peninsula, surrounded on three sides by Lake Superior. Located in the lake effect snow belt of Lake Superior, Houghton receives an average snowfall of ~220 inches a year. The area is famous for outdoor recreation, especially hiking, kayaking, sailing, mountain biking and cross-country skiing. It is just a boat ride away

from Isle Royale National Park. The Forestry Sciences Laboratory is on the campus of Michigan Technological University, providing intellectual and cultural experiences typical of a mid-sized university. Houghton is among the top 100 small towns in America according to Livability.com, is among the 16 best towns to live in according to Outside magazine, and is among the top 10 small towns near national parks according to Smithsonian Magazine. Local public schools are excellent—Houghton High School received a silver ranking according to US News and World Report and the Houghton-Portage Township school district is ranked 12th of 824 high schools in the state of Michigan.

Consideration of applications will begin May 21st and will continue until the positions are filled. Start date is flexible but can start as early as this June. Initial funding is currently available for 1 year of support, with additional support expected in following years, renewed annually. Please send a cover letter that states your research interests, curriculum vitae, any other relevant materials, and provide the names and contact information for three references to Erik Lilleskov (erik.a.lilleskov@usda.gov) and Rod Chimner (rchimner@mtu.edu).