Fall 2009

Serita Frey, Associate Professor of Natural Resources and the Environment, travels to Costa Rica

Serita D. Frey
University of New Hampshire - Main Campus, serita.frey@unh.edu

Serita Frey, Associate Professor of Natural Resources and the Environment, travels to Costa Rica

Serita Frey

Associate Professor of Natural Resources and the Environment - College of Life Sciences and Agriculture

Professor Serita Frey spent part of this academic year in Costa Rica to work on a number of projects related to her research.

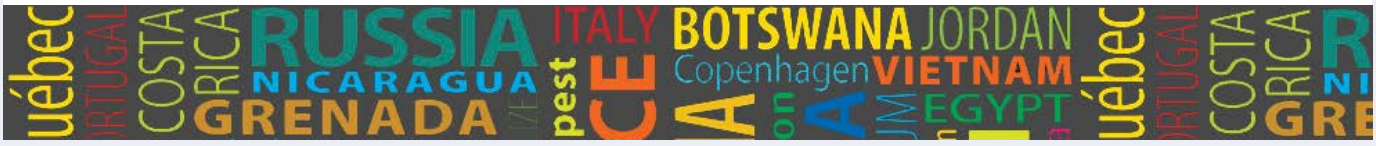
Serita Frey (right) with collaborator Gabriela Soto from the Center for Tropical Agriculture (CATIE) in Turrialba, Costa Rica.

I spent two months of my sabbatical during AY 2008-2009 in Costa Rica and Guatemala. I had three goals for this trip: (1) develop collaborations and explore potential research projects assessing the effects of global change on tropical soils, (2) develop a short-course for UNH students focused on tropical soils in Costa Rica, and (3) develop a training program in the environmental sciences for K-12 teachers in Guatemala. My research examines how global change (i.e., climate warming, nitrogen deposition, biodiversity loss, land-use change) is altering nutrient cycling processes in forest soils. On this trip, I visited with scientists at several universities and research stations to learn what research is being done in this area and what opportunities exist for collaborative research projects. During my visit to Costa Rica I also collaborated with Gabriela Soto, a soil scientist at the Center for Tropical Agriculture (CATIE) whose expertise is in tropical agricultural soils. Together we developed a two-week course on tropical soils and agroecosystems for UNH students. We traveled to potential field trip locations and put together a tentative itinerary and syllabus. The course will likely be offered during winter break and is tentatively scheduled to be offered for the first time in January 2010. Ms. Soto is an expert on organic agriculture/agroforestry and organic certification, and she has several ongoing research experiments on organic coffee production. Given that the College of Life Sciences and Agriculture (COLSA) is currently developing a strategic plan and academic program in sustainable agriculture, this course should be of interest to many of our undergraduate and graduate students.

During my visit to Guatemala, I collaborated with Nancy Giron at Rafael Landivar University to develop a teacher training program focused on the environmental sciences with an emphasis on soil and water quality. The first step toward developing this program was to conduct a needs assessment. Nancy and I developed a survey (with assistance from Erica Blatt and Eleanor Abrams here at UNH) and met with several groups of teachers representing both urban and rural school districts to gather information on the following questions: Are teacher training programs in the environmental sciences available and if so, what types of programs are available? What are the barriers to teachers participating in these programs? If such programs are not widely available, what program content would be of most value to the teachers (e.g., hypothesis testing, experimental design, environmental sampling techniques, curriculum development)? What incentives (i.e., stipend, classroom supplies, equipment) would encourage teachers to participate in such a program and apply their new knowledge in the classroom? We are currently in the process of collating the information we gathered and working to obtain external funding to support the program. Our goal is to initiate a pilot program in early 2010.

Serita Frey and collaborator Nancy Giron (both on right in back row) with K-12 teachers on the shore of Lake Atitlan in San Lucas Toliman, Guatemala.

These activities expanded my current research, teaching, and outreach efforts which to date have been focused primarily in the northeastern U.S. Many thanks to the UNH Center for International Education and the Farrington Fund in the Department of Natural Resources & the Environment for funding my trip.



Hood House • 89 Main Street • Durham, NH 03824 • Ph 603-862-2398 • Fax 603-862-0169
Thompson Hall • 105 Main Street • Durham, NH 03824 • Ph 603-862-1288 • Fax 603-862-0844
For questions about this website