From: Sabrina Russo

Subject: Graduate Research Opportunities in the Russo Lab

The Russo Lab (russolab.unl.edu) at the University of Nebraska-Lincoln is seeking masters or PhD students interested in conducting research in the following areas.

Plant-Soil Feedbacks – This project (crri.unl.edu/about-crri) investigates interactions between grasses and agricultural crops with the soil microbial community. A variety of approaches (field, greenhouse, genomic, and experimental) are being used to address questions ranging from identifying patterns of soil and rhizosphere microbial diversity, to investigations of mechanisms involved in plant-soil feedbacks, especially under stress.

Nebraska Forest Dynamics and Management – This project involves establishing permanent forest monitoring plots in Nebraskan forests as part of the Smithsonian ForestGEO plot network (www.forestgeo.si.edu) in order to build models that integrate vital rates and environmental drivers to describe and forecast changes in forest composition and function and that aid in developing adaptive management plans for forest conservation.

Functional Traits of Bornean Tree Species – This project involves quantification of leaf, stem, and root functional traits of tree species in Borneo at the Lambir ForestGEO plot (www.ctfs.si.edu/site/Lambir) to predict tree growth and survival using tree physiological models and to scale up to forest dynamics.

These projects involve multi-disciplinary collaborative teams and offer the opportunity to gain skills in areas such as microbial ecology, bioinformatics, genomics, geographic information systems, and modeling, in addition to ecology. Potential applicants should email Sabrina Russo (srusso2@unl.edu) with a description of their research interests and experience, and a resume summarizing previous coursework and listing any publications. See russolab.unl.edu/links and biosci.unl.edu/prospective-graduate-students for information on how to apply.