

Postdoctoral Position in Ecosystem Services of Restoration to work on project entitled “Liko Na Pilina: Developing Novel Ecosystems that Enhance Carbon Storage, Native Biodiversity, and Human Mobility in Lowland Hawaiian Forests”

A postdoctoral research position is available for an individual interested in melding plant functional trait theory, restoration planning, ecosystem services, and computer modeling. The experimental study already underway tests four different treatment combinations (species mixtures) for tropical lowland wet forest restoration based on species' functional traits. Management efforts to return to pre-historic states have not been effective and the current experiment involves a mix of native and non-native species. The goal of the postdoctoral position is to apply functional ecology and ecosystem service concepts, including modeling, to determine the efficacy of the treatments in providing ecosystem services, especially carbon storage and invasion resistance. Strong computer skills a must as the position involves developing and programming two computer models: 1) a model to help managers determine appropriate species for restoration using information about species' functional traits, and 2) applying biodiversity and ecosystem-level data being collected on tree growth, litterfall, soils, and regeneration into quantitative ecosystem service assessments.

The position will be based at the USDA Forest Service, Institute of Pacific Islands Forestry office in Hilo Hawaii. The successful candidate will work closely with project investigators Dr. Rebecca Ostertag, University of Hawaii at Hilo, Dr. Susan Cordell, USDAFS, PSW-Institute of Pacific Islands, Forestry, and Dr. Peter Vitousek, Stanford University. In addition the candidate will supervise and/or mentor field technicians, graduate and undergraduate research assistants, as needed. Responsibilities will include conceiving and implementing the ecosystem services assessment, which will yield publications, databases, and models; and organizing a workshop for model end-users. Development of additional areas of interest that conform with the scope of the research project will be encouraged.

Funding is available for approximately 2 years, depending on start date. A Ph.D. in Ecology, Forestry, Ecological Economics, or equivalent is required. Technical skills desired include: Strong quantitative skills in multivariate statistics, computing, and GIS, expertise in data management and databases; and an intimate understanding of ecosystem services theory and practice, and an ability to apply information towards plant functional trait theory and restoration. Postdoc will assist with field work when needed so good physical stamina for extended hours of field work under hot and sunny (or cool and rainy) conditions is a must. This postdoc position is part of a multi-year Department of Defense, Strategic Environmental Research and Development Program-funded research grant. A lay-person summary of the project can be found at <https://sites.google.com/site/laurawarmanecology/likonapilina>.

Additional information and application materials will be forwarded upon request. Review of applications has began and is ongoing (Start date can be as early as mid-Nov 2014). Interested candidates should contact Dr. Susan Cordell, (808-854-2628), scordell01@fs.fed.us or Dr. Rebecca Ostertag, (808-932-7573), ostertag@hawaii.edu