Social-Ecological Modeling of Resilient Landscapes Post-doctoral Appointment – Rutgers/USDA Forest Service

Rutgers, The State University of New Jersey, and the New Jersey Agricultural Research Station, through the Department of Ecology, Evolution and Natural Resources, invites applications for a 18 month-2-year post-doctoral appointment as part of the Center for Resilient Landscapes collaboration with the USDA Forest Service (USDA-FS), beginning as soon as February 2015. The appointee will work on developing an applied socio-ecological simulation model of governance and ecological processes to better address current and future challenges in forest resilience in the face of changing human development and climate regimes. The postdoc will work with faculty and scientists from both organizations to develop a line of research focused on the study of disturbance regimes prevalent in New Jersey and the surrounding region, which could include: fire in the wildland-urban interface (WUI), extreme storm events, developmental pressures, pests and invasive species, and changing economies and markets. The successful candidate also will work with project leaders to develop an institutionally-blended, cross-disciplinary team broadly bounded by forest resilience and management practice across the WUI and within the developed and developing landscapes in the urbanized coastal regions of the United States.

This appointment will be based in New Brunswick, NJ on the Rutgers Cook Campus, but will be part of a developing team of faculty and USDA-FS scientists whose main objective is to study urban natural resources stewardship and the development of social-ecological system resilience, from short-term recovery, to longer-term restoration, to fundamental system re-organization. The research and collaborative team is expected to have a regional focus and will develop programmatic linkages throughout (but not limited to) the Silas Little Experimental Forest; the USDA-FS Urban Field Station network; the Rutgers campuses in New Brunswick, Newark and Camden; and other regional university programs, as opportunity allows. Centrally located between the USDA-FS Urban Field Stations of Philadelphia and New York City, there will be opportunities to form collaborative relationships across and between locations.

Applicants with a broad range of disciplinary backgrounds will be considered, including geography, computational sciences, entomology, ecology, plant pathology, forestry, horticulture, environmental sociology, planning, and natural resource management. Specific responsibilities will include:

- Developing or adapting a socio-ecological model of landscape-level disturbance(s) that can be applied to the New Jersey landscape.
- Working with Rutgers and USFS project members to assemble a broad scientific team focused on study design, implementation and/or publications.
- Identifying and pursuing outside funding sources.
- Leading technology transfer efforts and authoring peer reviewed publications.
- Leading strategic development of the research program in conjunction with expert panels and/or advisory groups.

Preference will be given to candidates with expertise in the following areas:

- Experience with developing applied, integrated socio-ecological models (e.g., agent-based model, systems dynamics model).
- Experience working with and/or developing decision support tools.
- Computer programming abilities (e.g., R, python, MatLab, agent-based modeling software like MASON)
- Demonstrated written & verbal communication skills for scientific & practitioner audiences.
- Demonstration of strong collaborative and creative team building skills.

Salary and benefits:

A fellowship stipend will be the equivalent of $50,000 per year with a competitive benefits package: [http://uhr.rutgers.edu/policies-resources/faqs/faq-postdoc-fellow-health-insurance](http://uhr.rutgers.edu/policies-resources/faqs/faq-postdoc-fellow-health-insurance)
Letters of interest should include a CV, a one- to two-page research statement, highlighting the modeling approach the candidate might apply to this postdoctoral appointment, and three letters of recommendation. These can be submitted to:

Dr. Jason Grabosky  
14 College Farm Road  
New Brunswick, NJ 08901  
grabosky@aesop.rutgers.edu

Application materials may be submitted electronically via e-mail, with the subject heading: "last name USDAFS-RU Pdoc"

Application materials should be submitted by January 1, 2015 for a February 2015 start date, but the application period will remain open until a suitable candidate is identified. The start date is negotiable and could begin as late as June or September 2015.