Postdoctoral research associate in soil moisture and fire modeling at the University of Georgia

We seek a dynamic and innovative postdoctoral research associate to work at the nexus of soil science and fire ecology. Our project seeks to understand the relationship between soil moisture and fire prediction by integrating a suite of soil, fire, climate, and remote sensing datasets with robust modeling techniques. The project is a collaboration between the University of Georgia, Oklahoma State University, the US Geological Survey, and two USDA regional climate hubs (Southwest and Southern Plains). The candidate will be based at the University of Georgia in the Department of Crop and Soil Sciences in Athens, GA http://www.caes.uga.edu/departments/crop-soil.html. UGA is a Land/Sea Grant institution and is ranked 16th among public universities in the U.S. News & World Report’s 2018 edition of America’s Best Colleges. Athens is well known for its quality of life in regard to both outdoor and urban activities (https://www.visitathensga.com/) and is 90 miles northeast of Atlanta, the state capital. Ideal candidates would combine expertise in data analysis and modeling of large spatial datasets. Position is available September 21, 2020 for one year (contingent upon funding). We offer a competitive salary commensurate with experience. Keywords: Soil moisture; Wildfire; Mapping; Modeling

Objective: Primary goals are (1) quantify the relationships between modeled soil moisture and wildfire probability for two large river basins in the southwestern and south central US using soil and biophysical data; and (2) distribute wildfire probability maps for both basins.

Summary of duties: Integrate existing soil, climate, and other remotely-sensed biophysical variables to develop dynamic fire probability maps for two large watersheds in the southwestern and south central US at daily to weekly time steps and moderate spatial resolution. Produce wildfire data sets for the 2000–2016 period, and selected maps of dynamic wildfire probability. Work with collaborators and stakeholders to facilitate stakeholder meetings and produce peer-reviewed manuscripts, presentations and website content. Travel to some stakeholder and professional meetings is expected.

Required qualifications: Completed Ph.D. in soil science, fire ecology, landscape ecology, or similar field by start date. Experience with spatial modeling and proficiency with computer software including R, Python, ArcGIS, etc. is required. A positive attitude and willingness to collaborate with an interdisciplinary team of researchers is required.

Desired qualifications: Familiarity with soil geographic databases (e.g., SSURGO), climate data (e.g., PRISM), remote sensing, and wildfire modeling is desired.

To apply: Please send an email to Dr. Matt Levi at matthew.levi@uga.edu with subject line: “Application for soil-fire postdoc” that includes your CV and a short cover letter (1 page) detailing your qualifications and interest for the position. Review of applications will begin August 21, 2020. The University of Georgia is an Equal Opportunity/Affirmative Action employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability, gender identity, sexual orientation or protected veteran status.