

## Postdoc - Dynamics of U.S. Forests, University of Florida

We are seeking applications for a postdoctoral research position to study changes in the dynamics of U.S. forests using statistical and dynamical modeling frameworks. More than 2.5 years of funding are available for this position.

Background: Multiple factors may affect trends in forest dynamics, including rising atmospheric CO<sub>2</sub> concentrations, climate change, nutrient limitation, and air pollution. These factors may affect forest growth and mortality directly through physiological mechanisms, as well as indirectly through shifts in species composition. As the spatial and temporal coverage of national-scale data continues to improve, so do opportunities to better characterize and understand changes in forest dynamics. The complex disturbance history of U.S. forests also poses significant challenges for attributing changes to different mechanisms. Addressing these challenges requires advanced statistical and dynamical modeling approaches.

Details of the position: The postdoctoral scholar will be employed by the University of Florida and will work under the supervision of Jeremy Lichstein at the University of Florida and Grant Domke at the USDA Forest Service Northern Research Station in St. Paul, MN to improve our understanding of how and why U.S. forest dynamics have changed over recent decades. This project already funds a postdoctoral position focused on using Forest Inventory and Analysis (FIA) data to quantify trends in biomass, productivity, and demographic rates of U.S. forests. The new position is complementary and will focus on analyzing existing empirical datasets and/or developing and analyzing simulated datasets to better understand the strengths and limitations of FIA-based analyses. What are the limitations of FIA data and existing analysis frameworks with respect to detecting and attributing changes in forest dynamics? These questions can be explored, for example, by applying FIA sampling and analysis frameworks to simulated datasets with known properties. A candidate model for generating simulated datasets is SORTIE (<http://www.sortie-nd.org/>), but we are open to a variety of approaches and will work collaboratively with the successful candidate to develop a work plan. Principal duties include (1) developing and testing relevant modeling approaches, (2) applying these approaches to analysis of FIA data, and (3) publishing the findings in peer-reviewed journals.

Work location: Remote hires will be considered for exceptional candidates, but preference will be given to candidates who can regularly interact in-person with one of the project supervisors. The highest preference will be given to candidates who can work on the University of Florida main campus in Gainesville, FL. Secondary preference will be given to candidates who can work at the USDA Northern Research Station in St. Paul, MN.

The position is currently funded for 2 years + 7 months with a base annual salary of \$52,000 and competitive benefits. The start date is flexible.

Required qualifications: PhD in a relevant field; strong quantitative and writing skills.

Preferred qualifications:

- Experience with forest simulation models or other models of ecosystem dynamics.
- Experience analyzing forest inventory data and/or other environmental datasets.
- Knowledge of forest dynamics and terrestrial carbon cycling.

To apply, send the following to Jeremy Lichstein ([jlichstein@ufl.edu](mailto:jlichstein@ufl.edu)):

- Cover letter explaining your interest in the position and relevant experience.
- Curriculum Vitae.
- Contact information for three references.

We welcome applicants from underrepresented groups, and we strive for a diverse and inclusive work environment. For more information on our diversity and inclusion principles, please see:

<https://diversity.clas.ufl.edu/diversity-statement/>.