



University of  
Massachusetts  
Amherst

Postdoc position: Spatio-temporal modeling of forest dynamics

**Salary:** The annual salary is \$72k with full benefits. The position is funded by the [Northern Research Station](#) of the USDA Forest Service with an initial appointment of one year and a second year likely based on performance and continued funding.

**Start date:** Fall 2024

**Description:** The [Forest Dynamics Lab](#) at the University of Massachusetts, Amherst is recruiting a postdoctoral researcher with strong spatio-temporal modeling skills and an interest in applied forest ecology. The postdoctoral research aims to develop and apply a Bayesian dynamical model to predict forest dynamics across space and time synthesizing forest inventory data from multiple long-term inventory networks. The research will build on a recently developed Bayesian dynamical temporal model for forest dynamics ([Itter & Finley 2024, preprint](#)). Model outcomes will be used to help inform adaptive management approaches to promote ecosystem resilience and enhance long-term carbon storage. The position provides a unique opportunity to advance dynamical spatio-temporal models in ecology with direct application to forest management and conservation under global change. The postdoc will be supervised by Dr. Malcolm Itter within the Department of Environmental Conservation.

The position will be located on the campus of the University of Massachusetts in Amherst, in the Pioneer Valley of western Massachusetts. This is a fantastic location, with a remarkable mix of college atmosphere (Smith, Mt Holyoke, Hampshire, and Amherst Colleges are also here), culture, and natural resources. Some amount of remote work is possible.

The postdoc will be a member of the Forest Dynamics Lab—a diverse collection of quantitative and applied forest ecologists working to advance understanding and prediction of forest ecosystems under rapidly changing conditions with a focus on eastern temperate forests. There will also be opportunities to connect and collaborate with researchers at the [Harvard Forest](#) as well as the Northeast Climate Adaptation Science Center (NE CASC) ([necasc.umass.edu](http://necasc.umass.edu)) and the Northeast Regional Invasive Species & Climate Change (RISCC) Management Network ([riscnetwork.org](http://riscnetwork.org)).

**Qualifications:** The successful candidate will provide research leadership, model development, project management, publication of results, and applied science delivery. Candidates must possess a PhD in quantitative ecology, applied statistics, data science, or a similar field and should have experience modeling spatio-temporal processes. Previous experience working with stochastic partial differential equations and/or physical process models is preferred.

To be considered for this position, please send a cover letter outlining your research background and interests, a curriculum vitae, and contact information for two professional references to Malcolm Itter ([mitter@umass.edu](mailto:mitter@umass.edu)). Review of applications will begin August 30, 2024. Individuals who can add to the diversity of experience and knowledge in the Forest Dynamics Lab are strongly encouraged to apply.