

PhD opportunity – Response of US forests to climate change, University of Florida

This PhD opportunity, to begin in fall 2025, will leverage the national-scale US Forest Inventory and Analysis (FIA) database and may also include field work.

Supervisor: Jeremy Lichstein (<https://people.clas.ufl.edu/jlichstein/>)

Background: Multiple factors may affect trends in forest dynamics, including rising concentrations of atmospheric carbon dioxide, climate change, and nutrient limitation. 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. However, interactions between multiple global change drivers and the complex disturbance history of U.S. forests pose significant challenges for attributing changes to different mechanisms. Addressing these challenges requires creative modeling approaches. Our recent paper (doi.org/10.1073/pnas.2311132121) illustrates the type of research that our project is pursuing.

Details: This PhD position is associated with a USDA-funded project to study the carbon dynamics of US forests. The project aims to improve our understanding of how and why US forest dynamics have changed over recent decades. We are interested in better understanding both carbon dynamics and demography across life stages (seedlings, saplings, and large trees). Within this broad framework, the PhD student will develop questions aligned with their specific interests.

Tuition and stipend (\$32,500/yr with 3%/yr cost-of-living increase) are provided for up to five years, including two semesters of TA support and up to four years of RA support.

Start date: fall semester (around Aug. 15) of 2025.

Potential degree programs include the UF School of Natural Resources and the Environment (<https://snre.ifas.ufl.edu/>; application deadline Feb. 1, 2025) and the UF Biology Department (<https://biology.ufl.edu/>; application deadline Dec. 1, 2024). If you are interested in applying, please contact Jeremy Lichstein (jlichstein@ufl.edu) by around Oct. 15, 2024 with the following pre-application materials:

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

This informal pre-application does not have a strict deadline and is intended to: (1) help determine if this position would be a good fit for you, and (2) help you think about how you might approach your PhD, which will strengthen your subsequent formal application(s). Formal application to one or both programs listed above is also required if you decide to move forward.