Postdoctoral Researcher, Boreal Fire Management
Falmouth, Massachusetts Onsite, Hybrid or Remote
Link to Apply

Mission:
Woodwell Climate Research Center (Woodwell Climate) conducts science for solutions at the nexus of climate, people, and nature. We partner with leaders and communities for just meaningful impact to address the climate crisis.

Woodwell Climate is a rapidly growing, top-ranked, independent non-profit climate research institute whose mission is to advance science-based climate policies through scientific research and outreach. Our world-leading research and impact helps individuals, organizations, corporations, communities, and nations understand the realities of climate change, recognize the impact on our planet, and embrace the urgent action needed to safeguard the future of life on Earth.

Summary
Climate change is escalating wildfires across the North American boreal, which have the potential to emit massive amounts of carbon from combustion of organic material and post-fire permafrost thaw. Scientists at Woodwell Climate are a part of a growing coalition of scientists, Indigenous leaders, policy experts and fire managers assessing how fire management can be deployed as a climate solution across Alaska and Canada to protect carbon and permafrost from wildfire. A critical piece of this solution space is to build a carbon vulnerability map to assess areas across Alaska and Canada that are most vulnerable to wildfire-induced carbon emissions from both combustion and post-fire permafrost thaw. This analysis and map product can directly inform future changes in fire management and identify areas in greatest need of carbon and permafrost protection.

Join Woodwell Climate's Arctic Boreal Fire Management team as a Postdoctoral Researcher to carry out the carbon and wildfire vulnerability analysis and mapping project and collaborate on quantifying the impacts of wildfire management on carbon and permafrost. This project will be done in collaboration with scientists at the Cary Institute for Ecosystem Studies, who are leading a wildfire risk analysis in Alaska.

Responsibilities include but are not limited to:
- Building on existing observations and modeling frameworks, develop a methodology to map landscape-scale vulnerability to fire-induced permafrost thaw and carbon loss
- Merge the carbon and permafrost vulnerability map with fire risk to derive a spatial vulnerability ranking scale, and apply this across boreal North America
- Support and collaborate on other data analysis needs relating to quantifying the impacts of wildfire management on carbon and permafrost thaw, including through the use of field observations, spatial data products, and satellite remote sensing

- Schedule own work and lead project implementation
- Communicate results to various scientific, policy and management focused conferences, meetings and workshops
- Author and co-author associated publications, presentations, and/or technical documents.

Must have the Following Knowledge, Skills and Abilities:

- GIS, remote sensing and/or other earth observation data, advanced statistical techniques and experience manipulating large data sets
- Advanced computational and programming skills (R, python, Google Earth Engine, etc.)
- Excellent written and oral communication skills
- Ability to work independently and in a highly collaborative environment
- Ability to work with minimal supervision and provide supervision and mentorship to others as required
- Demonstrated history of an established record of successful original research and publications
- Knowledge of forest ecology, wildfire, carbon cycling and permafrost dynamics is preferred, particularly in arctic and boreal ecosystems
- Ability to travel up to 10% annually

Qualifications:

- Ph.D. (granted or expected soon) in Environmental Sciences, Earth System Science, Ecology, Geography, or a related discipline

Work Environment:

The functions of this role are conducted in:
A variety of environments, both indoor and some outdoor

Hours of Work:

- This role is paid on a salary basis.
- Typically, full-time employees work 40 hours during a Monday through Friday workweek. However, this is a salaried position. Therefore, the individual is expected to work as required to complete the duties of the position. This may mean weekend hours and/or hours beyond 40 per week on occasion.

Application review will be ongoing

Desired Start Date: October 2025

Fixed-term: 1.5 years, with the possibility to extend dependent on funding

Classification and Compensation: This is a full-time, salaried, exempt position, the annual salary range is starting at $73,200 dependent on qualifications/experience. Woodwell offers a generous benefits package and work life balance.

Location: Falmouth, Massachusetts, onsite, hybrid or remote.

Application Instructions: To apply, please send your cover letter addressing your experience and qualifications in relation to the responsibilities of this position and curriculum vitae as **a single PDF** to our career's portal.

Please visit Woodwell's website to learn more about Woodwell's work.

Located on a 10-acre campus near the village of Woods Hole, the Woodwell Climate Research Center (Woodwell) is a private, non-profit research center. Woodwell is a leading source of climate science that drives the urgent action needed to solve climate change. Woodwell has 100+ staff members and is excited to welcome new employees to this work.

Woodwell Climate is an equal opportunity employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, mental, or physical disability, age, sexual orientation, gender identity, national origin, familial status, veteran status, or genetic information. Woodwell is committed to providing access, equal opportunity, and reasonable accommodation for all individuals in employment practices, services, programs, and activities.