

WOODS HOLE RESEARCH CENTER

Postdoctoral Researcher

Boreal Forest Demographics - Job Number BRPD19

SUMMARY: WHRC seeks a post-doctoral researcher to develop and apply statistical models of forest demographics within Alaska and Canada. The research combines site-level forest inventory data, remote sensing time series, and ancillary geospatial data using advanced spatial modeling techniques. The successful candidate will work closely with the lead scientist and researchers at collaborating institutions to develop and apply these models at various scales, create a vulnerability framework based on model output, interact with natural resource managers, and help design a web-based visualization platform for data sharing. The successful candidate will join a team of researchers working across the boreal-arctic zone at a variety of scales.

Responsibilities: The successful candidate will:

Process and analyze remote sensing data, forest inventory data, and related geospatial data sets, taking advantage of supercomputing facilities operated by NASA.

Develop a predictive modeling framework for changes in forest biomass and its demographic components (growth, recruitment, and mortality) based on repeatedly-measured forest inventory data, long-term remote sensing time series, and ancillary spatial data. Develop an ecosystem vulnerability framework and collaborate on a web visualization platform for data sharing.

Take a lead role in project activities, collaborate with researchers at different institutions, and interact with natural resource managers.

Synthesize, present, and publish results.

Work in a highly collaborative environment.

Qualifications and Experience:

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

Experience manipulating large geospatial data sets, developing and applying statistical models including machine learning, and linking remote sensing to field observations.

Knowledge of boreal forest demographics and carbon cycling.

Excellent interpersonal, teamwork, written, and verbal communication skills.

Ability to lead a research project and independently develop new

directions.

Experience interacting with natural resource managers and other stakeholders is desirable but not required.

Application Deadline: October 18, 2019

Desired Start Date: January 2020

Classification and Compensation: This is a full-time, salaried, exempt position. The salary range is \$55,000 to \$60,000. This is a two-year appointment with the potential to extend. WHRC offers a very generous benefits package.

Application Instructions: To apply, please send cover letter highlighting your qualifications for this position, curriculum vitae, and contact information for three references to jobopenings@whrc.org. Please type BRPD19 in the subject line.

The Woods Hole Research Center is an independent, nonprofit institute focused on environmental science, education, and public policy. The WHRC focuses on combining analysis of satellite images of the Earth with field studies and computer models to better understand changes in the world's ecosystems, from the thawing permafrost in the Arctic to the expanding agriculture regions of the tropics.