

Peatland Wildfire 2yr Postdoctoral Fellowship

Drs Koreen Millard (Carleton University) and Sophie Wilkinson (Simon Fraser University) are looking to recruit a highly motivated postdoctoral fellow through a recently funded NSERC Alliance grant to address the growing challenge of accounting and mitigating managed peatland greenhouse gas (GHG) emissions in Canada. The accepted PDF will join a dynamic group of academic, government, and not-for-profit experts on peatlands and wildfire. The overarching goal of this partnership is to couple process-based understanding of peatland fire and GHG emissions/removals with remotely sensed data to develop improved understanding, new methods, and applicable tools that meet the needs of our partners.

The position will be based at either Carleton University (Ottawa, Ontario) or Simon Fraser University (Burnaby, British Columbia) and will be full-time, beginning on a 2-year contract. The ability to conduct 1-2 months fieldwork per year is preferred but not required. The candidate will develop strong skills in airborne and satellite remote sensing data analyses (LiDAR, SAR and multispectral) as well as statistical and machine learning model development and application. The candidate will work closely with federal partners (NRCan-CFS and ECCCP-PIRD), providing high-quality collaboration opportunities. Further, the candidate will be supported in writing peer-reviewed publications, attending conferences, and applying for independent research funding.

Drs. Millard and Wilkinson, along with their partners, actively support the enhancement of EDI in academia and encourage applicants from underrepresented demographics to apply. We commit to maintaining a safe and supportive environment for students, researchers, and staff and will continue to prioritize EDI moving forward.

What we expect from you:

- Doctoral degree in one of the following topics: terrestrial ecology, ecohydrology, micrometeorology, remote sensing (terrestrial), wildfire ecology or peatland-related topics.
- Experience with GIS/geospatial analysis and remotely-sensed data
- Demonstrated high quality peer-reviewed publications
- Proficiency with coding/scripting in R and/or Matlab and/or Python
- Ability to develop statistical models
- Excellent written and oral communication in English
- Ability to work well both in a team and independently

Also valued:

- Field work experience
- Experience with airborne LiDAR and/or Synthetic Aperture Radar and/or InSAR
- Experience using Bayesian, machine learning or deep learning techniques.
- Excellent time management skills
- Be comfortable working with open modelling/open access principles
- Previous experience managing research or projects

What you will be doing:

- Designing and performing research on peatland wildfire GHG emissions and removals using a combination of field measures, remote sensing and statistical/ML methods.
- Coordinating and collaborating with government, industry, and not-for-profit partners
- Writing scientific publications
- Participating in scientific events (conferences, workshops)
- Contributing to project and lab management

What we offer:

- Enthusiastic, supportive, team environment
- Unionized position at either Carleton University or Simon Fraser University (based on candidate preference)
- Salary of \$70 000 per year plus benefits*
- Office space and lab access at either Carleton University or Simon Fraser University (based on candidate preference)
- Hybrid working environment is optional
- Travel expenses and per diem for field work
- Travel expenses for at least one conference per year
- Funding to publish open access peer reviewed journal articles
- Support to apply for additional independent research funding, if desired

*benefits vary based on the institution at which you will be based- ask for details

How to apply:

Applicants should send PDFs of a one-page cover letter, a writing sample (preferably peer-reviewed publication) and an updated CV to sophie.wilkinson@sfu.ca AND koreen.millard@carleton.ca by May 30, 2024. Please use "PDF APPLICATION" as the subject. The cover letter should include a personal statement and the name, position, and e-mail contact of three potential referees. Shortlisted candidates will be interviewed in early June. The selected person is expected to join as soon as possible, but ideally September 2024 or sooner.