

OUTREACH NOTICE ECOLOGY POSTDOCTORAL FELLOWSHIP

ABOUT THE POSITION

The [Wildfire & Carbon project](#), funded by the Pacific Institute for Climate Solutions is recruiting a Landscape Ecologist from a completed PhD program to work at a postdoctoral level in a term position with benefits (2- 3 years). The position will work primarily with USDA-FS, PNW & PSW Research Station scientists, and join a multidisciplinary team led by Werner Kurz, with co-investigators Paul Hessburg, Dominik Roeser, Carolyn Smyth, and Lori Daniels. Given the current pandemic conditions, the postdoc will be based in Dominik Roeser's lab at UBC. The scientist will assist with revising and calibrating an existing research state-transition model (STM, REBURN) to include a number of forest treatment states that fairly represent treated surface and canopy fuel conditions as affected by natural disturbances (insects) or management, their impact on subsequent fire behavior, and response to subsequent disturbances or management. The development of these new states will require close collaboration with university scientists who are actively researching the characteristics of these states in the field, as well as exploring other available BC forestry datasets that may be essential to characterizing and calibrating these pre- and post-treatment conditions. The incumbent will also calibrate, refine, and evaluate any sensitivities of the revised model structure. This position is well suited to those who have experience and strong interest in ecological modeling and big data problems. The position offers a flexible work location with teleworking options, but travel to partner labs will be required, as needed, in manner that is safe and consistent with the circumstances of the ongoing pandemic.

JOB DESCRIPTION

- The scientist will work on a large-scale project seeking to better understand the dynamics and interactions among wildfires, carbon accounting, and bioeconomy opportunities in BC, in the context of the 21st century climate and intentional province-wide wildfire emissions reductions.
- Primary knowledge areas of the scientist are in the fields of landscape and fire ecology, climate change science, carbon modeling, forest ecology, and forest management.
- The scientist will apply data, information, and methods from a wide range of subject matter areas including, landscape succession and disturbance modeling, univariate and multivariate statistical methods, and advanced geospatial methods.
- The scientist will have demonstrated experience with project management, team collaborations and meeting grant-funded deadlines and deliverables.
- The scientist will conduct statistical analyses, evaluate patterns and trends, and summarize and report results from laboratory and field investigations.
- The scientist will be responsible for writing and publishing peer-reviewed scientific manuscripts and associated data management including data analysis, metadata documentation and data distribution.

Qualifications

- Minimum qualifications are a PhD degree in forest ecology, landscape ecology, fire ecology, wildlife ecology or related disciplines with proficiency in ecological modeling
- Excellent written and verbal communication skills are essential
- Demonstrated ability to work independently and in a team setting
- Expertise with R and Python programming languages is required

- Expertise in Geographic Information System software such as ArcGIS Pro or QGIS is required
- Understanding of key landscape ecology concepts and demonstrated expertise with statistical modeling techniques is required
- Experience in landscape models such as LANDIS-II and FireBGC, and fire simulation models such as FSPro, FLAMMAP, FARSITE and carbon budget models such as CBM-CFS3 is desired.

APPLICATION INSTRUCTIONS

To apply, please send a CV and cover letter to Dr. Carly Phillips (picswfc@uvic.ca) with the subject line *WFC PostDoc Application*. In your cover letter, briefly address how you meet each of the requirements of the position. If you have questions about the position, please contact Dr. Phillips.

Applications will be reviewed on a rolling basis starting January 15th until the position is filled. We plan to fill the position as soon as possible.