



Funded PhD Position: Quantifying the impacts of forest harvesting and retention schemes on watershed-scale ecosystem services

The MESH Lab (*Multifunctional Ecosystems for Sustainable Human & Nature Landscapes*) led by Dr. Matthew Mitchell in the Department of Forest Resources Management at the University of British Columbia (UBC) is seeking a motivated PhD student to join our research group starting September 2027. The successful candidate will join a collaborative nature-based solutions project that partners UBC, Carleton University, Tree Canada, Environment and Climate Change Canada, Natural Resources Canada, the Ontario Ministry of Natural Resources, and other partners. The overall project explores how to increase our understanding of the biodiversity and human well-being outcomes for forests as nature-based solutions across diverse contexts.

The PhD position focuses on understanding relationships between watershed-scale forest harvesting and retention regimes, freshwater biodiversity, and ecosystem services. The position will integrate ecosystem service modelling with land use change modelling to evaluate relationships between multiple ecosystem services as future forest harvesting and land use change occurs. The position is ideal for students interested in landscape or spatial ecology, social-ecological systems and ecosystem services, or forest management. The position also presents substantial opportunities to contribute to national-scale forest management planning in collaboration with Environment and Climate Change Canada and Natural Resources Canada, as well as to inform smaller-scale management decisions with the other project partners.

All qualified candidates are encouraged to apply; however, Canadians and permanent residents of Canada may be given priority.

Location: position will be based in Vancouver at the UBC Point Grey campus, with some travel within Canada to meet with project collaborators.

Skills and experience:

These qualifications are essential:

- MSc in ecology, landscape/spatial ecology, social-ecological systems, forestry, or similar (e.g., conservation biology, environmental science, land system science, geography)
- Strong interest in ecosystem services, conservation science, or forest management
- Strong teamwork and communication skills, including a positive attitude
- Strong written and oral communication skills
- Some data management and analysis skills
- Basic GIS or spatial analysis skills
- Proactive approach to learning new software and modelling methods

These qualifications are preferred but not required:

- Advanced GIS or spatial analysis skills, including familiarity with land use/land cover datasets, raster layer analysis, and landscape structure metrics, experience using ArcPy in ArcGIS Pro
- Experience manipulating and analyzing data in R
- Experience with ecosystem service models (e.g., InVEST, ARIES)

- Experience creating land use/land cover scenarios or similar

Salary: Guaranteed stipend of \$40,000/year plus benefits for 4 years. Students are expected to, and will be supported in, applying for relevant external funding (e.g. NSERC).

To apply: If interested, please contact Dr. Matthew Mitchell (matthew.mitchell@ubc.ca). **While applications will be reviewed until the position is filled, candidates should submit their application by September 30, 2026 to ensure full consideration.** Please include as a single PDF attachment the following:

- 1-page cover letter expressing your interest in working in this position and relevant experience or key qualifications
- CV/Resume
- Undergraduate transcripts (unofficial is fine)
- One writing sample
- Contact info for 2 references

We particularly encourage applications from members of marginalized or minority groups, including those based on sex, sexual orientation, gender identity or expression, racialization, Indigeneity, disability, political belief, religion, marital or family status, or age.