

## POSTDOCTORAL POSITION IN SUSTAINABLE MANAGEMENT OF FOREST ECOSYSTEMS

**Research project: A decision-support tool to improve the resilience of national parks to global change**

**Location:** Université TÉLUQ (Montreal)

**Start date:** January 2024

**Fellowship:** 60,000\$/yr

**Supervision:** Elise Filotas (Université TÉLUQ), Marc-André Villard (Sépaq), Louis Bernier (U. Laval), Emma Despland (U. Concordia), Daniel Kneeshaw (UQAM), François Lorenzetti (UQO), Deepa Pureswaran (Service Canadien des Forêts)

**We are looking for an outstanding candidate to undertake a research project to develop a decision-support tool to guide the selection and prioritization of environmental monitoring, protection and restoration activities in seven national parks of the Société des établissements de plein air du Québec (Sépaq).**

### Project Summary:

Sépaq is the Québec government corporation responsible for managing the activities and services of the 24 national parks and 13 wildlife reserves located south of the 50th parallel. Its mandate is to ensure the conservation and protection of these sites, and to make them accessible to the public for educational and recreational purposes. However, the cumulative impacts of extreme climatic events and various disturbances (insects, disease, exotic plants, overgrazing) are compromising the future capacity of these sites to fulfill their mission and forcing Sépaq to review and adapt its management and conservation practices. The proposed research aims to provide an overall picture of the stress factors threatening seven parks in southern Quebec (Yamaska, Oka, Frontenac, Iles-de-Boucherville, Mont-Orford, Mont-Saint-Bruno and Plaisance), and to assess the relative success of intervention scenarios in reducing the risks to maintaining forest cover.

As part of this project, the person recruited will design a geomatic decision-support tool to identify practices that can curb or limit the impact of these threats and assess the relative effectiveness of scenarios for implementing these practices. In addition, the person recruited will be responsible for creating standardized sampling protocols needed to monitor changes in stress factors. The person recruited will therefore need to have the skills to carry out field sampling work as well as geomatics projects.

The internship will be carried out under the primary supervision of Professor Filotas in her forest ecosystem modeling lab. The successful candidate will also work with all members of the research team and spend time in their laboratories. In addition, they will work closely with Sépaq's Conservation and Education Department and the teams at each of the seven parks. This postdoctoral internship represents a unique opportunity to acquire diversified expertise in entomology, forest pathology and forest ecosystem disturbances in the context of forest management and conservation.

### Expertise/ Profile required

- Ph.D. in biological sciences or related discipline within the last three years
- Publications in peer reviewed English language journals
- Expertise in plant biology and field experience
- Strong geomatics skills
- Programming skills (R or Python).
- Knowledge of entomology an asset.
- Autonomy, rigor and excellent organizational skills
- Ability to work and write in French and English (or strong motivation to do so).

**To apply,** send a cover letter describing your research interests and skills; two examples of publications demonstrating your research experience; a copy of your most recent transcript; a curriculum vitae; and contact information for at least two references to [efilotas@teluq.ca](mailto:efilotas@teluq.ca).

We accept applications until the position is filled.  
Only selected candidates will be contacted.