



**Faculty of Natural Resources Management  
Lakehead University  
Braun Building  
955 Oliver Road  
Thunder Bay, Ontario, Canada  
P7B 5E1**



**M.Sc. position funded by a MITACS scholarship**

**Subject: Use of Sentinel-1 SAR and Sentinel-2 optical images for wetland and land use mapping in the Mont Saint-Hilaire Biosphere Region (Québec)**

Program: Master of Science (M. Sc.) in Forestry (thesis-based)

Preferred start date: May 2025

Location: Faculty of Natural Resources Management, Lakehead University, Thunder Bay (ON)

### **Project description**

Wetlands are land that is saturated with water long enough to form watery soils and grow hydrophytic or water-tolerant plants. These are complex ecological systems that are formed only when hydrological, geomorphological and biological factors collectively create the necessary conditions. In Montérégie, Quebec, these areas are subject to many pressures due to human activities, invasive species and climate change. It is therefore necessary to have a high-precision map of wetlands as an appropriate management and monitoring tool to ensure their preservation and protection.

The research will be done in collaboration with **Connection Nature**, a non-for-profit nature conservation organization based in the Mont Saint-Hilaire Biosphere Region (Québec). It will be funded by a MITACS scholarship over 2 years that is sponsored by Connexion Nature starting May 2025.

### **Position requirements**

B. Sc. in geography, geomatics or associated disciplines

- Knowledge of image processing software (PCI Catalyst or others)
- Knowledge of GIS software (QGIS or ArcGIS Pro)
- Minimum 70% average

### **Information about the project**

Dr. Brigitte Leblon ([bleblon@lakeheadu.ca](mailto:bleblon@lakeheadu.ca))