

# Characterization and propagation of northern biological crusts (MSc)



**Program:** Plant biology

**Where:** Université Laval, Québec City

**Fieldwork:** Abitibi region (Quebec) and greenhouse (U.Laval)

**Starting date:** May 2020

**Scholarships\*:** Can\$ 15,000 / yr (MSc)

\*Academic courses are taught in French

## Project description

This project aims to study "native" biological crusts (communities of bryophytes, lichens, algae and cyanobacteria growing on the soil surface) in northern and subarctic regions, and to identify the main environmental factors controlling the distribution of natural communities of biological crusts. The MSc project also aims to develop techniques for restoring mineral soil disturbances in alpine and northern habitats and using metagenomic techniques to assess diversity. More specifically, this project will focus on the development of propagation methods in Laval University greenhouses and on understanding the effect of growing regimes on the composition of cultivated crusts.

Under the supervision of **Juan Carlos Villarreal** (Department of Biology), a specialist in plant biodiversity, particularly bryophytes and lichens, and **Line Rochefort** (Department of Phytology), an internationally renowned specialist in bryology and head of the Peatland Ecology Research Group.

### Send your application, along with:

- 1) Motivation letter;
- 2) Resume;
- 3) Most recent grades transcript;
- 4) Contact information of 3 references;

to [candidature-gret@fsaa.ulaval.ca](mailto:candidature-gret@fsaa.ulaval.ca) and [juan-carlos.villarreal-aguilar@bio.ulaval.ca](mailto:juan-carlos.villarreal-aguilar@bio.ulaval.ca)

### Join a dynamic research lab: the Peatland Ecology Research Group!

Team of 5 to 10 graduate students

Support by research professionals and field assistants

Participation in national and international congresses

Weekly lab meetings