

## **Master's and PhD positions on diversity and molecular detection of *Phytophthora* pathogens**

Master's and PhD projects are available at the Canadian Forest Service (CFS) to work on the diversity and molecular detection of *Phytophthora* pathogens in Quebec Christmas tree plantations. We are looking for motivated students who will conduct field and laboratory experiments, and will use high throughput sequencing techniques to determine the identity, diversity, and pathogenicity of isolated *Phytophthora* species. This project is a collaboration between Phytodata, the CFL (Laurentian Forestry Center) and the CFIA (Canadian Food Inspection Agency). This position represents a unique opportunity for the selected candidates to interact with a multidisciplinary research network on phytopathogenic agents.

Applicants will use standard microbiology and molecular biology techniques, and high throughput sequencing to identify and assess the diversity of *Phytophthora* species causing root rot in Quebec Christmas tree plantations. The pathogenicity of microbial strains will be assessed using bioassays on seedlings. Incidence, diversity and pathogenicity data will be used to develop diagnostic molecular tests specific to the main species responsible for fir root rot.

Candidates must have a university degree in biological sciences. Knowledge and experience in forest pathology, fungal biology, molecular biology, bioinformatics and statistics are assets. Due to the academic and social environment, knowledge of or will to learn French is desirable.

Applicants must send their CV, a description of their research experience and future interests, as well as the names of two references to Dr. Philippe Tanguay (Philippe.Tanguay@canada.ca), by September 1, 2019. Registration for the 2019 fall or 2020 winter semesters will be considered.