

**Speaker:** Bryan Driscoll, M.Sc. student (cosupervisors Maja Krzic & Louis-Pierre Comeau)

**Title:** The effects of terraces and tile drainage as best management practices on labile soil carbon fractions and greenhouse gas emissions

Abstract: Soil and water are fundamental natural resources for potato production in Atlantic Canada, where 40% of Canada's potatoes are grown. Potato production requires intensive management, causing high soil disturbance from tillage operations and associated fertilizers and insecticides. Potato fields in this region are subject to heightened soil erosion from water runoff and tillage. This, in turn, leads not only to loss of fertile soil, but groundwater pollution by leached chemicals, pathogens, and nutrients. In order to effectively address these challenges and to conserve soil and water resources in this region, there is a need to develop Best Management Practices (BMPs) and study their interactions. Bryan will introduce the Landscape Integrated Soil and Water Conservation (LISWC) system that is being developed in Fredericton, New Brunswick, where his research is located.

**Bio:** Prior to beginning his Masters in September 2019, Bryan spent the previous two years as a member-owner of the Vancouver Food Pedalers Cooperative, growing microgreens for local grocers and restaurants in a converted shipping container greenhouse in Strathcona. He graduated from UBC in Applied Biology in 2016.