

A Bug's Life: Invertebrate Response to Mine Reclamation

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Mining is an important industry in Canada, creating 590 000 jobs and generating 57.6 billion to Canada's GDP. That being said, mining is a significant disturbance on the natural ecosystem and therefore mining companies must conduct reclamation. My study addresses how reclamation age and soil amendments affect invertebrate community composition. Invertebrates are a good indicator of a reclaimed mine site. More specifically, they mediate the relationship between plants and ecosystem processes, are sensitive to the environment, and are high in abundance and species richness. The objective of this study is to further understand the reclamation trajectory as well as evaluate invertebrate community composition compared to un-mined sites. Plant community data and invertebrate samples were obtained in 2017 and 2018. In 2017 I collected samples from four mines: Highland Valley Copper, New Gold at New Afton, Bralorne Gold Mine and Mount Polley. In 2018 I collected samples from two mines: Highland Valley Copper and New Gold at New Afton. Samples are currently being identified through DNA metabarcoding analyses.