

**Name:**

Natalie Irene Maslowski (she/her), BSc.

**Thesis TITLE:**

- Impacts of short-interval wildfire on forest regeneration in Glacier National Park, British Columbia

**Supervisor:**

Dr. Jill Harvey

**Committee members:**

Dr. Mike Flannigan, Dr. Kira Hoffman, Dr. Lauchlan Fraser

**Research Project Abstract:**

The inland northwest will see a doubling in the occurrence of wildfires by the end of the 21st century, an increase in extreme burning conditions, and more severe mega-fires. Ecological impacts of more frequent wildfires can include fewer trees regenerating post-fire, shifts in forest type, and forests converting to other types of ecosystems. High-elevation, mountain forests (1,200-2,300 m asl) in the inland northwest typically experience wildfire once every 100-200 years, but with changing climatic conditions projections indicate shorter intervals between fire events (<30 years). To characterize the ecological impacts of short-interval wildfires on high-elevation forests, we assessed vegetation regeneration across 74 plots in Beaver Valley, Glacier National Park (1,349 km<sup>2</sup>), Canada. Plots were distributed across areas affected by no fire, a single wildfire (2017), and two wildfires (1992 and 2017). Further, we determined whether the order of burn severities (low or high-severity) influences forest regeneration (e.g., two consecutive high-severity wildfires). Preliminary results suggest that two consecutive high-severity wildfires resulted in minimal canopy regeneration, demonstrating the influence of order and severity on early stages of post-fire regeneration. These insights will better characterize how short-interval wildfires impact forest regeneration and forest resilience to climate change.



**Personal Bio:**

I am a masters of environmental sciences student at Thompson Rivers University, where I am completing a research based masters thesis trying to understand the impacts of short-interval wildfires on forest regeneration in Glacier National Park, British Columbia. I have experience working in spatial analysis, fire regime characterization, and fire weather analysis both within the academic field and in the context of fire management for Parks Canada. When I am not scouring the ground for seedlings in the field or fixing my R code in the office, I can usually be found trail running in the mountains or sliding down slopes on my skis.

