Proposal Outline (draft 1)

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12/8/2021

Introduction:

Intro to Old Growth Forests:

- Significance of OGF (general and in Canada)
- % of forest lost
- OGF Ecosystem services
- Other impacts/qualities of OGF... end with something saying how the most abundant microbes in OGF are fungi, leads into...

Introduction to Fungi (in OGF):

• Fungal soil contribution/function

Introduction to Carbon (in OGF):

• See what I can find about carbon in OGF, if anything I can discuss the contrast in the literature

Successional Fungal Community Structure: (soil and fungi?)

- General understanding of fungal community structure as forest age increases
- Longitudinal variation (Kristen mentioned someone...)
- Elevation variation
- Soil characteristic
- Environmental conditional changes:
 - Warming
 - Changes in CO2
 - Soil moisture
 - Tillage/physical disturbance
 - Other chemical disturbance

Fungal Communities and Carbon Dynamics: (tied into above):

- Fungal Carbon Functionality
- Carbon sequestration
- Carbon cycling
- Carbon degradation
- Carbon ...

Maybe end the intro with the gap I am aiming to fill? : ex: : An over arching issue when we consider analyzing these systems is the lack of clarity in the literature. From simple old growth forest definitions to understanding the below ground activities, is is apparent that there is much to learn about these systems. It is our aim to provide a new look at observing old growth forests by analyzing the soil fungal communities.

Note that the $\mbox{echo} = \mbox{FALSE}$ parameter was added to the code chunk to prevent printing of the R code that generated the plot.