Carbon Fluxes in Boreal Forests
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Introduction:
With climate changing across our entire world it is important to understand how it will affect different ecosystems. The Boreal forests make up 30% of the Earth’s forests; so in the research the focus was on the carbon fluxes within Boreal forests. And how climate change has affected carbon fluxes and how prominently disturbance events changed the results.

Methods:
-Meteorological towers in two sites Old Aspen (OA) and Old Black Spruce (OBS) in Saskatchewan, Canada
-Eddy Covariance methodology
-Analyzed and plotted on R Studio

Results:
-In 2001-2003, there was a drought as represented in the Soil Water Content and the precipitation.
-After the drought the mean precipitation increased by ~47 mm annually.
-Average temperature has increased since the drought.
-There has been increased Respiration and resulting in a decreased NEP.

Discussion:
Some of the limitations include:
- Annual data is broad so we weren’t able to look at seasonal trends.
- Only looking at 2 sites in Canada, Boreal forests are across the world and different forests could have varying results.
- NEP is nuanced all of the environmental variables are interrelated There isn’t a clear 1:1 relationship between any variable and NEP.
- The two sites are also slightly different geologically and localized weather could affect one without affecting the other.

Future work
-Data could be collected from other sites on different continents to compare
-Data on a smaller scale could be analyzed, looking at seasonal patterns

Conclusions:
-The data indicates that the soil type is a factor in the differences in how the two sites react. OA has sandy soil whereas OBS has a more clay soil. This also leads to different kinds of trees with differing photosynthesis styles.
-Boreal forests are usually a carbon sink and this is beneficial for climate change, but when the forest is too distressed it can instead become a source.

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