Cole Nielsen

Homework 10

TA: Rachel Kerber

Of all the guest lectures in this class, my favorite one was the recent one done by Lee Frelich on the Boreal Forests native to places like Northern Minnesota and the impact climate change will have on them and the Minnesotan ecosystem in general. Throughout his presentation, Frelich covered many topics like natural succession of the Forests in regions like the BWCA, climate change and most interesting to me was how the impending climate change in Minnesota will affect the natural ecosystems within the state. In particular, he talked about how the location of current biomes like the Boreal Forests to shift north with the changes in temperature gradients over time. He stated a major concern about the shift over time, and this concern was that the suitable region for the biomes in our state will shift north faster than nature can naturally migrate, which could spell disaster for Minnesota’s natural ecosystem. The reason why the shift in temperature will outpace the natural migration of ecosystems is due to the fact the plants migrate very slowly, with many species only being able to disperse seeds within meters of themselves, meaning they can take hundreds of years to travel distances that humans can travel in hours. In order to prevent impending disaster from this, Frelich then spoke about how we can help ecosystems survive changes of these likes. One way he spoke about is to essentially stop climate change, so there will be no change in these biomes. However, this method is unlikely to work following how today’s societies run. So alternative to that, he gave to other approaches, being to help the biomes to adapt through methods like controlled fires in the forests to promote diversity, or to directly “facilitate” the change of the ecosystem by actively managing it through means like planting forests/plant life. I found this lecture most interesting of all of them because I am quite interested in forest ecology, so this presentation naturally struck me as interesting.