

## **Wildfires and Droughts in Montana**

### **William Riley, Class of 2027**

This summer, thanks to funding from the Alfred E. Golz Fellowship I was able to explore the history of wildfires and droughts in Montana. Throughout my life I have been interested in the intersection between historical work and science, especially as it relates to climate change, and this project gave me an opportunity to continue to develop skills of inquiry, organization, and writing. Living on the East Coast, I have not personally experienced the devastating impacts of wildfires and droughts like so many others across the country and around the world. Exploring both the scientific and human impacts of these fires and droughts, and how their severity has increased with climate change, has given me a platform to better understand the situations of others.

I spent the summer in Bozeman, Montana, where I completed extensive research in the Montana State University Archives. Originally, I started looking at general wildfire and drought information in Montana, and over time, narrowed my research to focus on the Canyon Creek Fire of 1988. The Ron Marlenee Papers, a collection from one of Montana's former House of Representatives Members contained testimonies of the fire, United States Forest Service Records, monthly weather reports, and much more. Along with researching in the archives I also had the opportunity to explore the landscapes around Bozeman which has been impacted by wildfires. I visited multiple burn sites with varying extremes, and time since the burns had occurred. This hands-on experience helped me better contextualize my findings in the Marlenee Papers. I also learned Q GIS, a GIS mapping platform which allowed me to make maps of the fire, enriching my understanding of the burns.

Using the Marlenee Papers, I recreated a narrative of the Canyon Creek Fire. Next, adding in information from supplemental books, newspaper clippings, site visits, and analysis of my own, I developed conclusions about the Canyon Creek Fire and general fire policy over time in the United States.

One of the main conclusions I came to is how important it is to understand the anthropocentric mindset we bring to environmental issues. This mindset directly impacted the way early fire policy was formed, and all burns were deemed to be harmful. Looking forward it is necessary to recognize this bias and rely on continual scientific research to enrich our understanding. With climate change fires have become hotter, faster burning, and more devastating. Unlike other fires, these fires are detrimental to the landscape and human life. Our efforts to stop them directly coincides with our efforts to minimize climate change. In the future, flexibility in implementation and in understanding for fighting climate change and working with fire in our landscape will be incredibly important.

My essay detailing the Canyon Creek Fire provides an important snapshot into the impacts of past fires and will provide a building block to explore future research of fires in Montana and compare them to both the data and testimonies from 1988.

**Faculty Mentor: Professor Strother Roberts**

**Funded by the Alfred E. Golz Fellowship**