



*University of Utah*

UNDERGRADUATE RESEARCH JOURNAL

**FIRE HISTORY OF PYRAMID LAKE, UINTA MOUNTAINS, U.S.A., THROUGH  
CHARCOAL ANALYSIS**

**Hannah Stevens (Dr. Mitchell Power)  
Department of Geography**

ABSTRACT

Wildfire plays a significant role in all forest ecosystems. Fire regimes are heavily influenced by the climate and topography of an area. The Uinta Mountain range in Northeastern Utah is unique in the intermountain west for its topography, east-west orientation, and its consistent high elevation. Fire regimes are dynamic and change over time. This project focuses on the past 500 years of fire history in the Uinta Mountains and aims to discover the role that temperature and precipitation play in fire regimes. The research examines historical fire records using charcoal analysis from a sediment core obtained from Pyramid Lake. The results from charcoal analysis will be compared with historical climate data to understand the links of these variables over time. The results gathered from this research show that as temperatures warm and precipitation changes, fires are likely going to increase in severity and frequency. Understanding the link between fire and climate will help inform managers how to prepare for changing fire regimes and how to manage forests appropriately.